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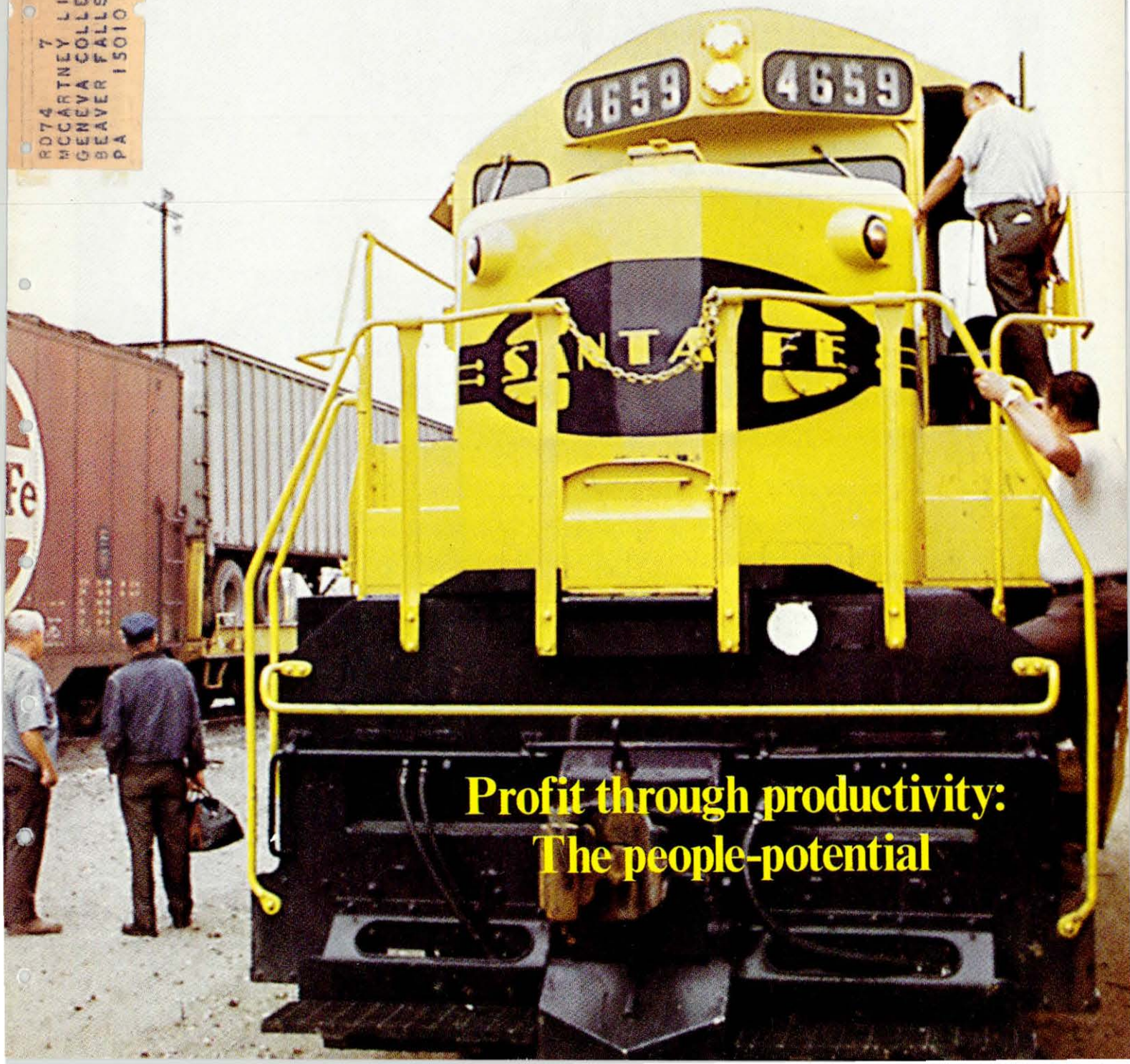

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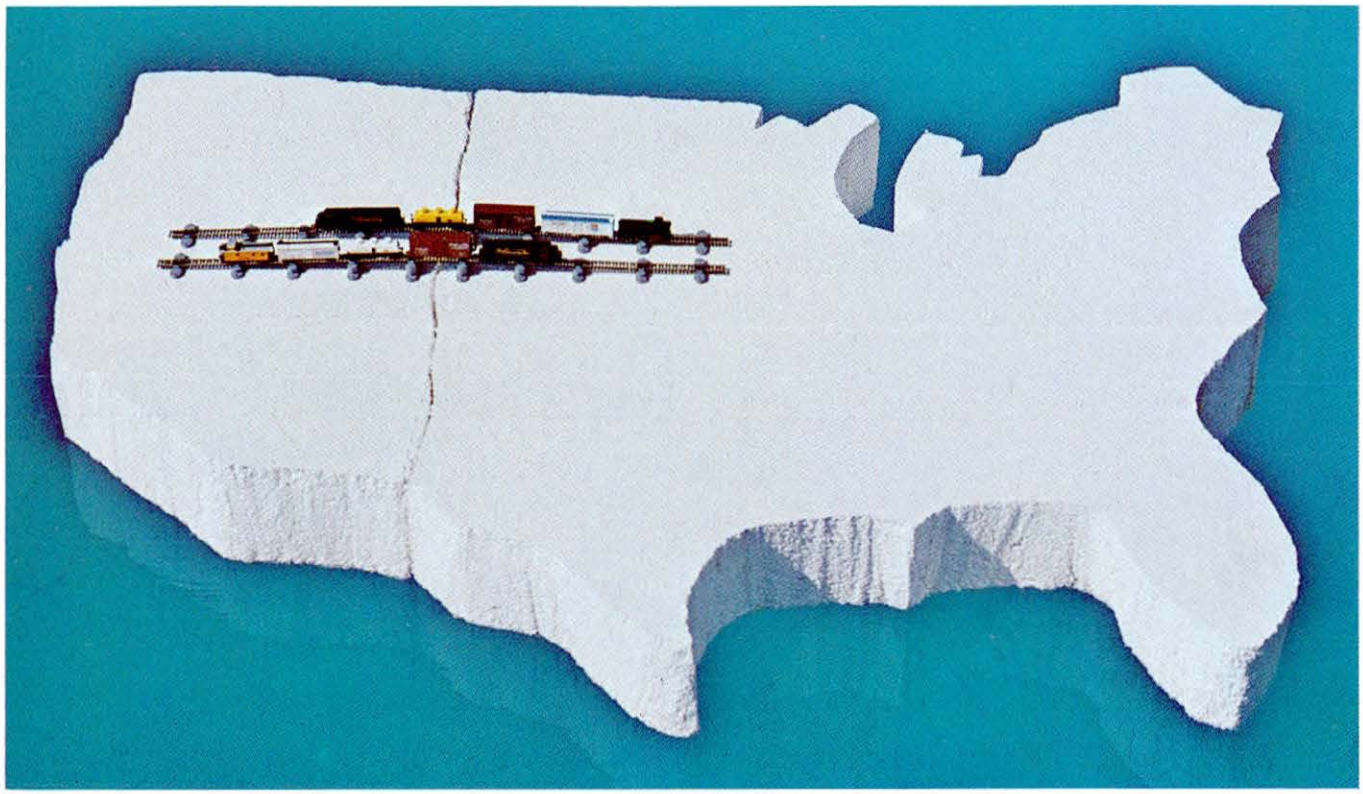

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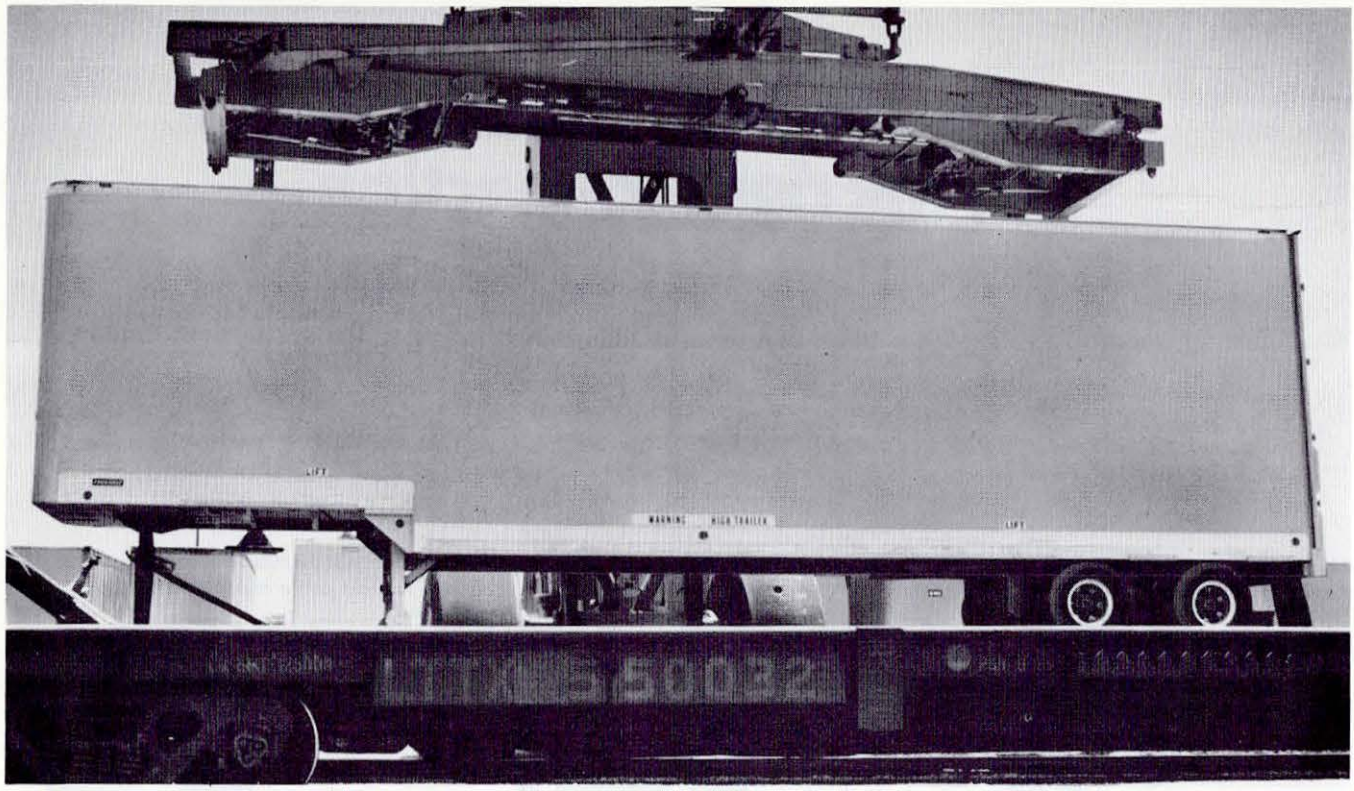

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Circle 3 on coupon page 43

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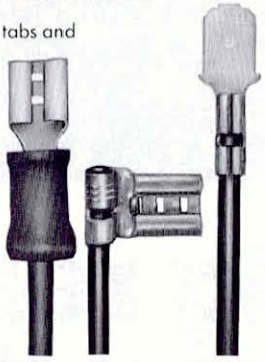

AMP FASTON tabs and receptacles assure dependable, vibration-resistant connections. Insulated sleeve prevents accidental shorts. Available in straight-on type, and in flag type for use where space is a critical factor. Circle 19 on coupon page 43

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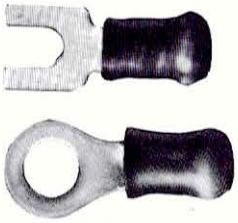

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July 30, 1973 • Vol. 174 No.14

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Inside

LUTHER MILLER

"PEOPLE" IN THE NEWS

Senior Editor Gus Welty opens this issue's cover story ("The People Potential," p.28) with a true-false quiz on labor/management relations. Try it. A passing score is 100%. Anything less than that indicates that you are either (1) still living in the dark ages of labor/management relations or (2) not reading Welty's "Lines on Labor" column which appears in each issue of this magazine. Or both.

When Gus journeyed from Greensburg, Pa., to Chicago to join the staff of Railway Age as an assistant news editor 16 years ago, the trade press, as well as the general press, was reporting labor affairs pretty much on a "what happened" basis. It was Jim Pate (then working for the Association of Western Railways; now director of public relations for the Rock Island) who, Gus recalls, got him interested in labor reportage: "Jim took the time to explain to me the mysteries of negotiations." Under Gus's direction, Railway Age began to report not only "what happened"—but "what's happening," and on occasion, "what ought to be happening." Through both his column and frequent in-depth Q. and A. interviews with both management and labor, Gus brought to Railway Age readers not only an interpretation of events as they happened—but more importantly, the thinking likely to shape future events.

Gus has reported on labor affairs in dark times and in good times. That these are good times, indeed, all things being relative, is evident from his thoughtful essay in this issue—the latest installment in our "Profit through Productivity" series.

DOT, WALL STREET, AND THE NORTHEAST CRISIS

The Department of Transportation's view that private investors can be persuaded to finance railroad restructuring in the Northeast may have lifted the hopes of the die-hard, no-Federal-aid camp, but it has only lifted eyebrows in Wall Street. In a paper prepared for a Federal Bar Association seminar in Washington July 23-24, one of the financial community's leading authorities on railroads—Isabel Benham of Shearson, Hammill—seriously questioned the ability of the private sector to participate in a Northeast solution along the lines proposed by DOT. While describing the Brock Adams plan as "very ingenious," Miss Benham suggested a simpler approach: creation of a new Reconstruction Finance Corporation, similar to that of the '30's which would extend credit to marginal as well as bankrupt roads. Another Wall Streeter with solid credentials in railroad financing—Pierre Bretey of Reynolds Securities—also rejects DOT's private-sector solution: "It's going to take a massive infusion of Federal aid, by whatever mechanism."

The two main sponsors of Northeast legislation now before Congress—Senator Vance Hartke (D.-Ind.) and Rep. Brock Adams (D.-Wash.)—couldn't agree more. Their latest thinking is reported on pp. 10 and 23.

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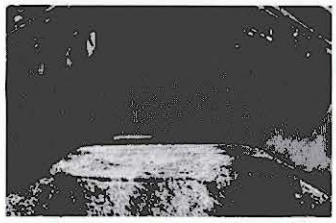

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DOWELL

RAILWAY AGE

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COVER

The common, ordinary crew-change: It could be a symbol of the runthrough, the extended run, delivery of the solid train—a symbol of a lot that's happening, in the interests of better service. The photographer: Don Erb, system photographer, Santa Fe, at Los Angeles.

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Short and Significant

ARCI FORESEES CONTINUING CAR BOOM

The American Railway Car Institute is now predicting that orders for new freight cars will total 67,500 in 1973, around 20,000 more than were ordered in 1972. Deliveries in 1973 are estimated at 61,000. For 1974, ARCI's market forecasting committee predicts 65,000 orders and 63,000 deliveries. The committee is made up of representatives of railroads, carbuilders and component suppliers.

NTSB ISSUES MUNITIONS PROPOSALS

Concerned about the safety of rail movement of munitions, the National Transportation Safety Board has sent three more-or-less interim recommendations to FRA, proposing (1) issuance of temporary regulations requiring the use of cars equipped with roller-bearing trucks and either composition brake shoes or spark shields for transportation of munitions of the type involved in three incidents, two occurring this year and one in 1969; (2) placement of at least one "spacer" car between carloads of munitions; and (3) an increase in inspection and surveillance of car selection, loading and movement when munitions of the kind involved in the three explosions are shipped.

FOR SOO LINE, 360 WILL BECOME 370

Soo Line directors have approved a long-range program for upgrading data-processing facilities which will include installation of an IBM 370 system to replace Soo's present IBM 360 system. Installation and implementation of the 370 system, Soo says, will improve revenue-accounting procedures and permit a change to a centralized freight-car distribution system. The change-over will take place over the next three years.

SOUTHERN ACQUIRES TENNESSEE LINE

The Southern has received ICC approval to acquire the Tennessee Railroad, a 57-mile coal line which operates between Oneida and Fort Mountain, Tenn. The purchase price is 20,000 shares of Southern no-par common stock. The line has been in receivership since 1959.

RAILROADS AND LAND: STILL DEVELOPING

Railroad-related land developments continue to make news in major cities around the country. Among the biggest and newest projects: One Market Plaza in San Francisco, a joint venture of Southern Pacific Land Co. and the Equitable Life Assurance Society of the U.S. which will involve, among other things, modernization of the 10-story SP building and construction of 28 and 43-story office towers; and International Rivercenter in New Orleans, a joint venture of Southern Pacific Development Co., L&N Investment Corp., Hilton Hotel Corp. and New Orleans interests, in which about 23 acres of riverfront property will be redeveloped at a total cost of about $200 million.

FOR GSI, A DIVISION—AND A SALE

General Steel Industries, no longer a carbuilder, will still have a hand in the railroad/transit business, through formation of the GSI Engineering Division—a separate profit center which will service existing license agreements for design of suspension systems and trucks for passenger/transit cars and locomotives, and "will continue research and development activities in the field of railcar suspension and related areas." Meanwhile, GSI had scheduled a public auction (for July 18-20) of equipment at the St. Louis Car plant, which ended production in April with shipment of the last units in a subway-car order from NYCTA.

PENNSYLVANIA MAY BUY RAIL LINES

One year after tropical storm Agnes dealt a devastating blow to railroads in the Northeast, the State of Pennsylvania is moving toward the purchase and restoration of up to 100 miles of track abandoned by the Penn Central and the Lehigh Valley in the wake of the Agnes floods. The legislature has enacted a law permitting the state to apply for $4.5 million in Federal funds for this purpose; the state is to put up $1.5 million in matching funds. The legislature acted under the terms of a Federal law passed in October 1972.

ICG's MASSOTH HEADS P.R. ASSOCIATION

The Railroad Public Relations Association has elected Clifford G. Massoth, director of public relations and advertising for the Illinois Central Gulf, as its new president. He succeeds Martin M. Pomphrey, assistant to the president of the Frisco. Other new officers are: senior vice president, James G. Pate, director of public relations for the Rock Island; vice president-eastern region, Cecil G. Muldoon, assistant director-public relations, Penn Central; vice president-western region, Robert E. Gehrt, assistant manager-public relations, Santa Fe; and vice president-southern region, E. Leo Koester, manager of public communications, Louisville & Nashville. Re-elected secretary-treasurer was John N. Ragsdale, manager of industry relations, office of information and public affairs, AAR.

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All aboard for Louisville... on the Milwaukee Road.

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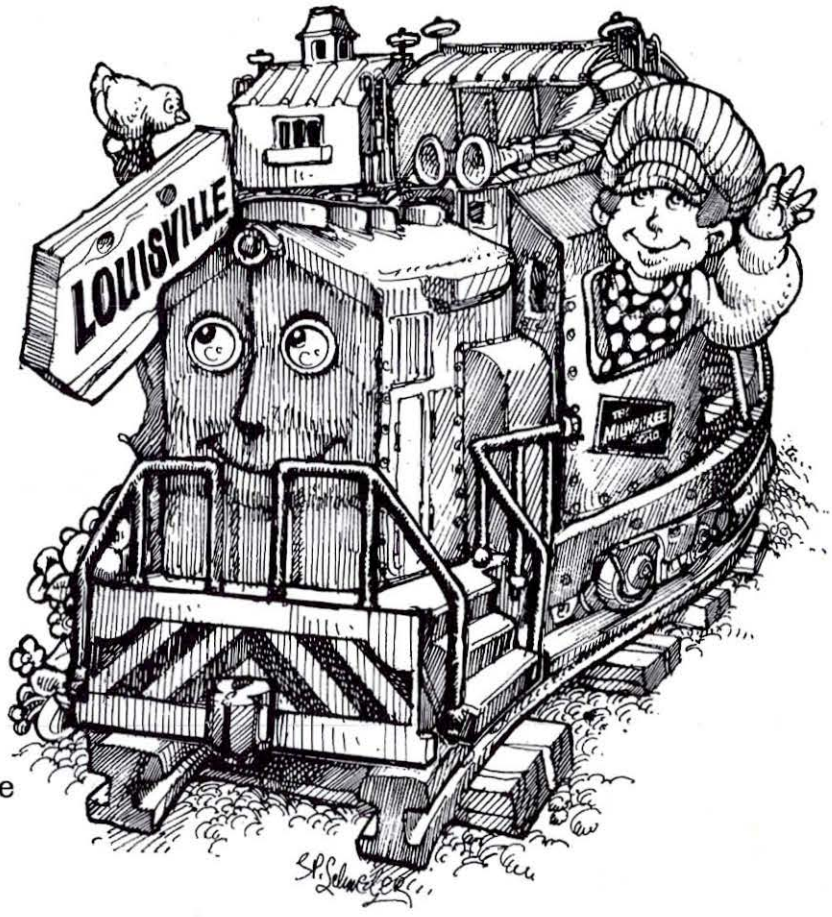
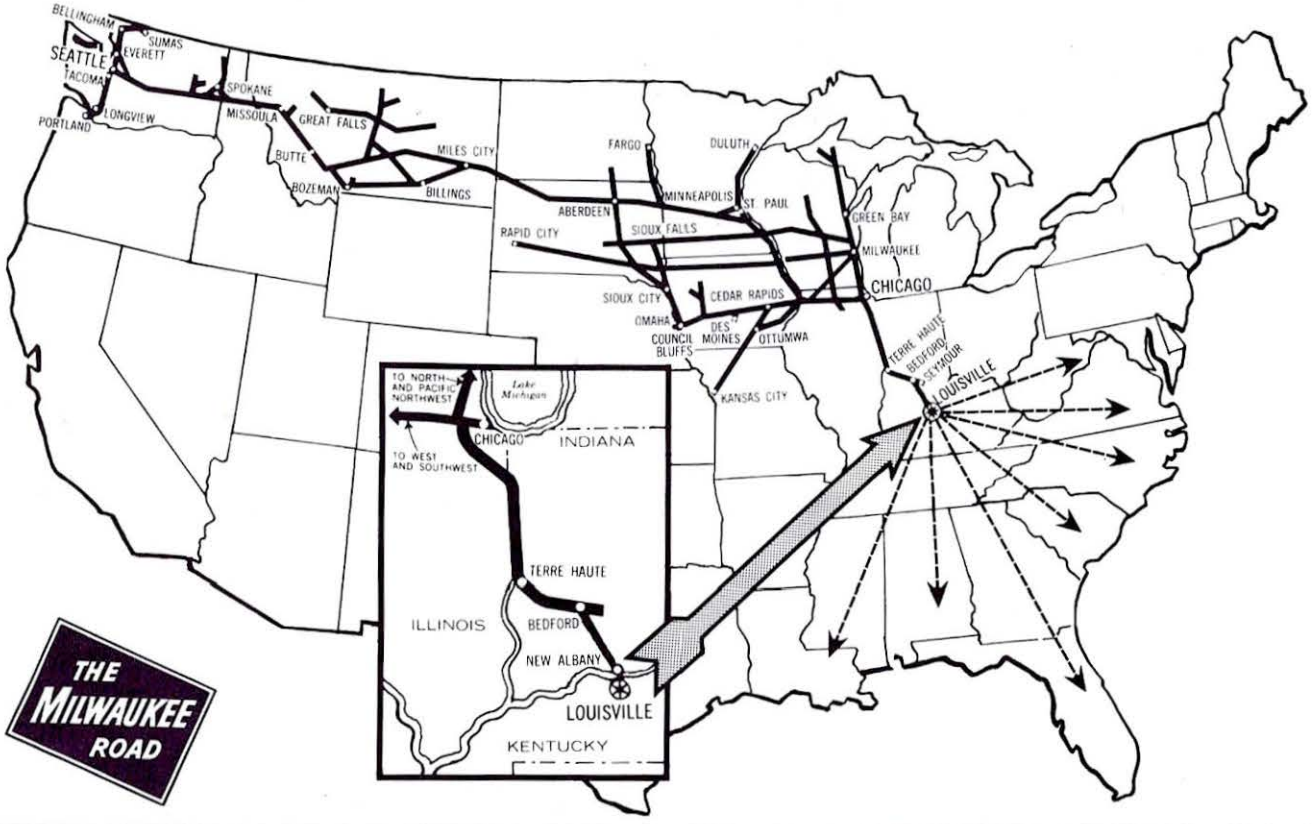




RAILWAY AGE
NEWS

"Hartke vs Adams—and everybody vs DOT"

Sometime before Oct. 1, a bill is likely to come out of Congress containing language that will persuade Penn Central trustees to strike out of their reorganization plan those portions calling for liquidation of the company's railroad assets. That bill will be a compromise document containing elements of three major "Save the Northeast" proposals now before Congress. Hammering out the compromise will not be easy. And with a three-week Congressional recess set to begin Aug. 3, it promises to be a short, hot summer for all concerned. "Too short," says Rep. Brock Adams (D-Wash.). "Events are overtaking us."

As of mid-July, the situation was summed up this way by one weary observer: "It's Hartke vs Adams—and nearly everbody vs the DOT."

● **Who sets the routes?** Actually, the proposals that emerged in midsummer from Senator Vance Hartke's Surface Transportation Subcommittee and Congressman Adams's counterpart House subcommittee were not all that far apart. Both called for designation of a restructured Northeast railroad system by groups outside of the Department of Transportation. Adams's proposal would have the routes designated by a "blue-ribbon" commission subject to minimal political pressure. Hartke would have the restructuring done by a new Rail Emergency Planning Office within the ICC which would report monthly to Congress. The main difference between the Hartke and Adams plans lies in how the restructured system would be brought into being as a viable private (though Federally-aided) enterprise. The Adams proposal spells out the financing mechanism rather precisely and in such a way that the new Northeast Railroad Corp. which he envisions would be in business within about one year (RA, July 9, p.10). The Hartke bill would leave the mechanics of implementation to be further studied and recommended by the new ICC office—with the result that the whole process could take up to two years. Both the Adams and the Hartke plans contain provisions for interim financial aid to prevent further erosion of the estates of the bankrupt carriers—a *sine qua non* as far as the bankruptcy courts are concerned.

The DOT plan is similar to the other two mainly in that it calls for a new and restructured Northeast system. And there, the paths of Congress and the Administration part. While fuzzy on details—too fuzzy to suit either Hartke or Adams, who have complained repeatedly of the DOT's apparent reluctance to work with Congress on a detailed plan—the Administration plan calls for minimal Federal aid for the "core" system which it would salvage from

SENATOR HARTKE: He would move more cautiously than Adams, but on one thing they agree: DOT has been the stumbling block.

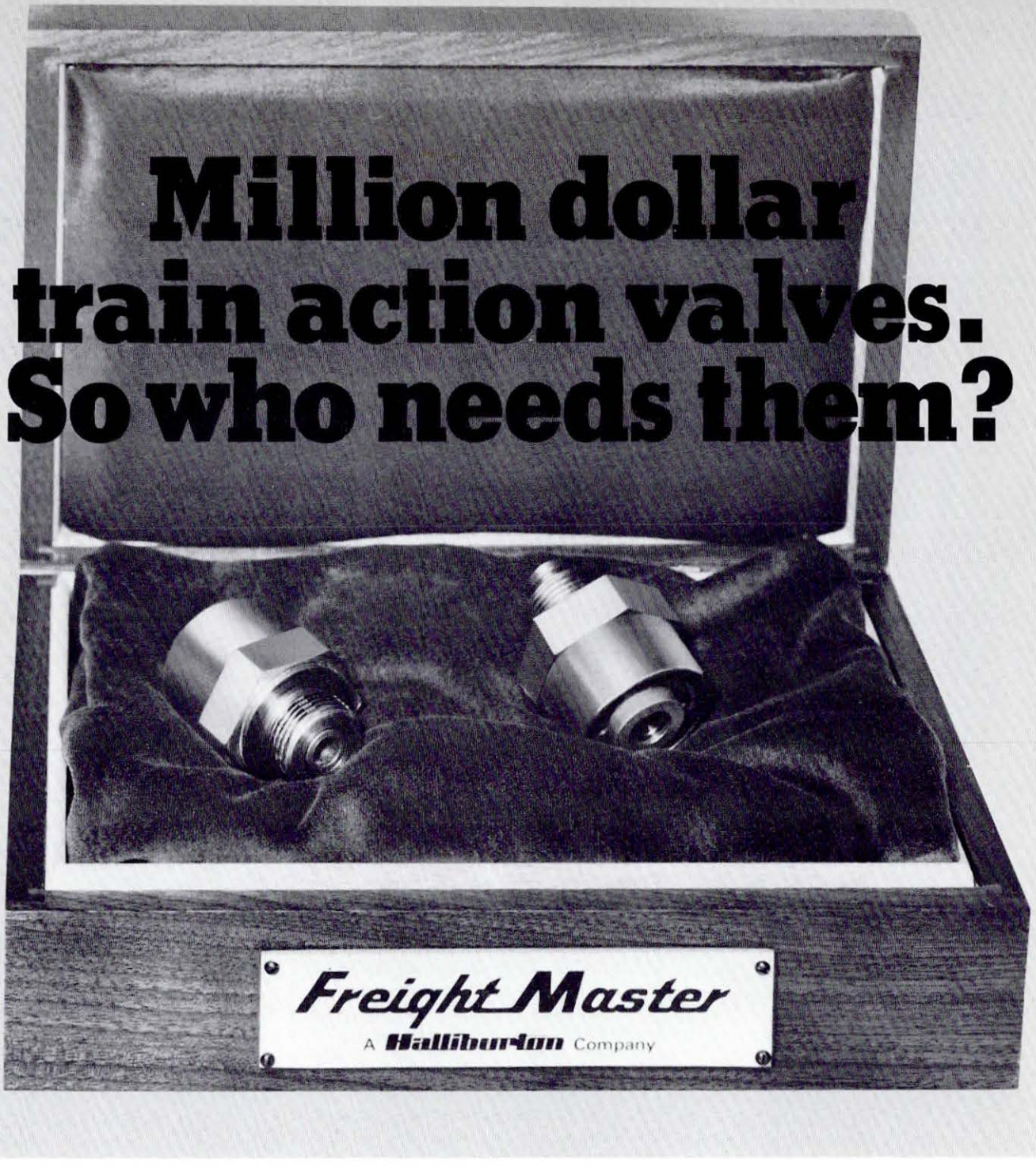
27,000 route miles presently operated by the bankrupts (RA, April 9, p.10). DOT Secretary Claude Brinegar has now indicated that the Administration may go along with interim cash aid up to $85 million and he holds out the vague prospect of more massive Federal aid, if necessary, sometime in the future; but DOT remains largely committed to a hands-off, let-the-private-sector-do-it solution. (In this, DOT appears to have some support from two neighboring carriers, the Chesapeake & Ohio and the Norfolk & Western, who have made no secret of their fears of having to compete with a subsidized giant.)

● **The Hartke approach.** The latest of the major plans to surface in Congress was that of Senator Hartke, whose proposal came in two parts: a long-range solution, and proposed interim measures. At a July 16 news conference, Hartke described his plan for a Midwest and Northeast Rail Systems Development Act in these words:

"It is the stated purpose of this legislation to 'facilitate the restructuring of the present rail system in the Midwest and Northeast regions [an 18-state area including the Senator's home state of Indiana] in order to meet the present and future needs for rail transportation in those regions.' To accomplish this purpose the legislation would create a special office within the Interstate Commerce Commission (the Rail Emergency Planning Office) which would be responsible for: 1) conducting an initial investigation of the present rail transportation system; 2) preparing and submitting a preliminary identification plan for a restructured rail system; 3) preparing and submitting a proposed final identification plan for a restructured rail system for the rail emergency region; and 4) preparing and submitting to the Commission recommendations as to the most expeditious and feasible means to bring into existence the identified restructured rail system."

Hartke's timetable is this: Within 45 days from the date of enactment of the legislation, the new ICC office would receive DOT's preliminary core recommendations. Meanwhile, the office would "survey existing rail facilities, ascertain their present capacity and utilization, explore traffic movement patterns of people and freight, and analyze the rail service needs of the region. The bill would specifically require the Office to study methods of effecting economies in rail system operations through relocation, consolidation, rehabilitation, modernization, abandonment and so forth. The bill would also require the office to project the cost benefits of each of these procedures. Within six months. . .the office would publish a final report on its

(Continued on page 23)



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Circle 6 on coupon page 43

Lou Menk looks (longingly) at the CAB

News item: "WASHINGTON, Sometime-in-the-future.—Burlington Northern today filed a rate-increase proposal with the Civil Aeronautics Board which, if approved, will boost transportation revenues by an amount sufficient to produce a 12% rate-of-return. . . ."

Fanciful? Sure. Whimsical? Probably. But fair? Well, why not?

The father of the thought is Burlington Northern Chairman Louis W. Menk, who ventured into the lair of the lawyers recently—the Interstate Commerce Commission Practitioners group—to talk about, mostly, regulation. And about midway in his comments, he brought forth the CAB zinger—along with the quote that made the whole thing come to mind. First, he held out hope for a legislative rewriting of governmental regulation "so that some common sense shines through." But, he mused, "if I don't agree with what is legislated this year—if we *do* get remedial legislation—I may just try to take BN out from under the ICC and get it placed under the Civil Aeronautics Board."

Sure, he quickly added, the idea "has some drawbacks. For one thing, we only have two planes, and that's not much of an air force. And all of our legal advisors will probably come up with an array of reasons why I can't or shouldn't. But—that knowledge doesn't lessen my fascination with the idea." Why such a fascination? "The new chairman of the CAB, Robert Timm, has made what I think is a very fine suggestion. He says 12% would be a fair rate-of-return for the airlines. I've yet to meet Mr. Timm. But I certainly admire the way he thinks."

• 6%, 10%—and 3%. Translating that back to railroad-reality, BN's chairman noted, the ICC has indicated that "a 6% rate-of-return is necessary for the railroads. Our own economists say it should be 10%. Last year, railroads failed to average even 3%. What happens is that "these low earnings—deficits on some railroads—are a deplorable drain on the ability of carriers to give adequate transportation service. And the public loses."

What's behind this "deplorable drain"? For one very big thing, an "erosive system of regulation that has wasted a substantial portion of this nation's rail system and threatens the rest of it."

The record, Menk said, shows that "this industry has lost revenues of more than $1 billion since 1967 because we were unable to get immediate approval for rates that eventually did get put into effect." What does this mean to one individual carrier? BN's finance department did a study on "how much additional revenues we would have received if the system had been working the way we think it should. Their report showed that in the five years 1968-72 Burlington Northern and its predecessor lines would have been benefitted by approximately $109 million in added revenues if the prices on our services had been put into effect the same day we applied for government approval. That sum represents payment we should have received for service that was performed—so the $109 million would have gone right to the bottom line. And even if the rates we requested had been put into effect within 30 days after application, revenues over that five-year period would have been $84 million higher."

"The new chairman of the CAB says 12% would be a fair rate-of return for the airlines. I certainly admire the way he thinks." —BN Chairman Menk

• More than just rates. Of course, Menk pointed out, the regulatory problem is by no means limited to the rate question. For instance: "Since merger a little more than three years ago, we have filed 28 applications to abandon lines on which customers had abandoned us. Twenty-seven have been approved. [But] the quickest approval was received in three months and the longest took 26 months. The average elapsed time from filing to a decision by the Interstate Commerce Commission exceeded nine months. Add in the average of four months to prepare an application for the Commission on an ICC basis and you get a total of 13 months. Final abandonment—at last—is saving my company an estimated $4.5 million a year. But, we calculate that we lost $1 million annually because it took that average of 13 months instead of a more reasonable nine months to gain those approvals."

Finally, BN's financial people added it all up and found that "if we had been able to bring about our merger in four years instead of nine, and if rate increases had been approved in 30 days instead of two to six months, and if it had taken only nine months instead of 13 months to abandon lines on which we had been abandoned, Burlington Northern and its predecessor lines would have been saved about $40 million a year over the past five years. That's $200 million—$2 per share in increased earnings after taxes every year for five years. The government regulatory system took that money from the shareholders who own BN, just as the system took an additional $191 million in 10 years through losses on passenger service. Add those figures and you get the cost to Burlington Northern in just one decade of excessive government regulations—nearly $400 million."

• The capital problem. As for the legislative situation, BN's chairman took note of the third birthday of the ASTRO report, "which clearly outlined the spreading problems of the railroads. Various bills have been introduced in the Congress since then. But, as of this date, not one change in regulatory law has occurred. Indeed, the capital needs of the railroads have increased in these three years."

Again, use BN as an example: "By the end of 1973, we will have expended more than $640 million in the short time since merger for equipment and facilities. About one-third of the cost of these capital improvements was paid for out of retained earnings. The balance, around $400 million, was financed externally. And we now pay out more than $48 million a year in interest charges." This, Menk indicated, underscores the importance of Surface Transportation Act provisions which would "ease the industry's capital shortage by providing insurance for loans to acquire equipment and guarantee financing to improve facilities. These provisions are important because even BN and the handful of other currently-strong railroads cannot generate internally all the cash needed to continually upgrade plant and equipment. And many other railroads can't even obtain financing on reasonable terms for essential improvements."

What would have happened, had BN and its predecessors had the use of that $400 million lost to regulation over 10 years? About two-thirds of that sum after taxes "would have gone right into earnings to be used for improvements."

What, instead, has happened to the industry? "Regulation, transportation policy or the lack of it, has been playing a dangerous game of Russian roulette with our railroads. The bullet has gone off, for six of those in the Northeast. And someone had better grab the gun."

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MEMBER RPI

The following 29 railroads have standardized on the new brake shoe.

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Denver & Rio Grande Western
Detroit Toledo & Ironton
Elgin Joliet and Eastern
Fort Worth & Denver
Georgetown
Great Western
Houston Belt & Terminal
Illinois Central Gulf
Kansas City Southern
Missouri Kansas Texas
North American Car
Pacific Fruit Express
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Soo Line
Southern Pacific
Southwest Portland Cement
Texas Mexican
Union Pacific
Western Pacific

We're proud that 29 roads have standardized on Samson brake shoes since AAR approval.

Since Samson's approval by AAR for interchange, the 29 roads listed at the left have standardized on the high-phosphorus brake shoe for freight cars or interchange repairs.

This acceptance by chief mechanical officers and car men is based on the way Samson shoes combine economy, braking performance and spark suppression.

These roads have found that even though they pay more for Samson shoes at the outset, they soon begin to realize savings of 24-54% because Samson lasts up to 2 1/2 times longer than ordinary metal shoes.

Performance-wise, Samson provides reduced sparking and better train control. Enthusiastic locomotive engineers report improved handling in terms of both shorter stops, and lower brake pipe reductions, compared to standard metal shoes. And they've found that Samson reduces the need to set up retainers for long downgrade braking.

You owe it to yourself and your road to "get with" Samson shoes. We've made them readily available by licensing all metal shoe suppliers in the U.S. to produce this unique high-phosphorus shoe. Check any of these 29 roads on our claims. And to talk about the application of the Samson to your particular operation, contact your Abex representative. A mighty good man to have working on your railroad.

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Lines on Labor

GUS WELTY

RETIREMENT PLAN OK'D

What the railroads and major rail unions had put together, neither Congress nor the President was in any mood to put asunder. And so, the carrier/union agreement on Railroad Retirement survives in much the same form as it took in the pact which railroad and union representatives initialed last March. So far as the average employee is concerned, the big item will be the shift from the employee to the employer of that part of the Railroad Retirement tax load that exceeds tax withholding for Social Security. Railroads will take on this burden Oct. 1—and when they do, employees now paying the maximum into the fund will find their monthly take-home pay increased by $42.75 a month. Contributions to the system are scheduled to go up next Jan. 1, and at that point the take-home increase will climb to $47.50.

Other key points in the railroad/union agreement and in the legislation provide for continuation through the end of next year of temporary benefit increases enacted in 1970, 1971 and 1972; and for earlier voluntary retirement for all employees (at age 60 after 30 years' service) with no loss in benefits.

For the long-haul, the approved plan also sets a time-table for action to solve the financial problems of the system: A joint management/labor committee is to submit its proposals to House and Senate committees by next April 1. And finally, the legislation recognizes the need for fast action on rate increases to cover costs incurred by the carriers in taking on the extra Railroad Retirement load.

RETIREMENT COSTS, A TIMETABLE FOR RATE ACTION

Best present estimates are that this extra load will cost the industry $55 million over the last three months of 1973, and $250 million or more for full-year '74. Under the legislation which President Nixon signed July 10, the ICC has 30 days to come up with procedures for expedited handling of rate increases solely related to the Retirement cost increases. Then, after the filing of a rate proposal, the Commission would be required to act within 60 days. (On intrastate rates, railroads would first have to go to state authorities. States would have 60 days to act, and railroads would have recourse to the ICC if a state doesn't act or turns down the proposal or grants less than the full amount requested.)

OTHER LABOR-COST INCREASES: ICC WILL LOOK

Increases granted under this plan would be strictly limited to the recovery of Retirement-related costs and would not cover, for example, the cost of the 4% wage increase due next Jan. 1. But in this broader area, too, perhaps there's some change coming in regulatory policy: In Ex Parte 296, the ICC is into a rule-making proceeding looking at ways in which regulated carriers might get back, through rate boosts, at least part of their labor-cost increases. In general terms, this might mean increases (on an expedited basis) of up to 2.5% in any year in which labor costs rise by 5%—if certain other conditions are met, relating to labor cost as a percentage of revenues, and to rate-of-return. Figures cited by the ICC for both the cost/revenue ratios and rates-of-return for regulated carriers make interesting reading—but that's a column for another time.

Systemwide aci for GTW by 1975

A $7.5-million investment by Grand Trunk Western is to produce a completely integrated automatic information system on car movements, operations and revenues for the entire railroad by April 1975. ACI Systems Corp., which is designing and installing the sophisticated computer network, says this will make GTW the first North American railway with such sophisticated controls.

"When complete in 1975," says Howard M. Tischler, GTW general manager of information services, "the total computer system will give Grand Trunk an almost instantaneous inventory of operating and accounting facts to improve decisions and service affecting our customers."

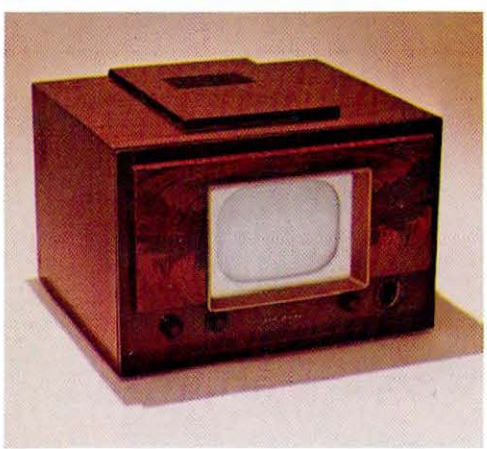
Involved will be 61 ACI scanners, four field computer centers housing three computers each, and five computers in GTW's Detroit headquarters. First stage will be installation of four Chicago-area scanners at Elsdon, Blue Island and Harvey, along with the field computer (or "node") center at Elsdon. Concurrently GTW will be putting in wheel sensors to give axle counts, direction of movement and time of passing. "Grand Trunk will be the first Class I railroad to install wheel sensor monitoring on a system-wide basis in flat switch yards," explains Tischler.

Scanners will be installed at points throughout the Grand Trunk system at terminals, yards and in high-traffic areas.

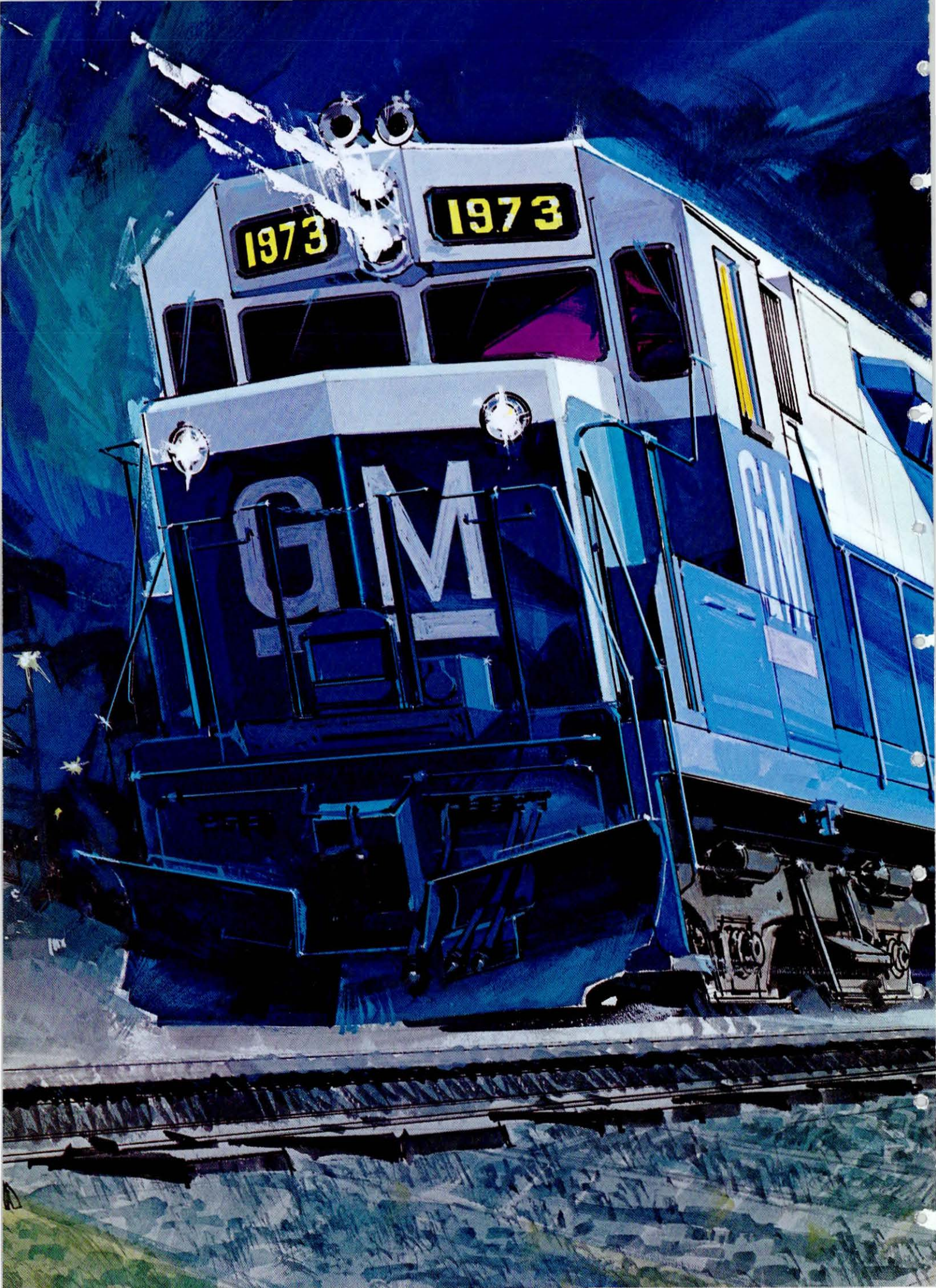
In addition to the Elsdon "node," there will be field computer centers at Battle Creek (covering also Kalamazoo and Lansing), at Flint (covering also Muskegon, Durand and Port Huron), and at Detroit (covering also Pontiac). Data will feed from these field nodes to data central, the five computers at Detroit. Three computers, identified as the "front-end processor" will sort, store and prepare data for the pair of IBM 370s so they can concentrate exclusively on data processing.

Information processing which requires immediate action will be accomplished with the "on-line" type of operation. Lower priority functions are to be done on a scheduled basis, including sales reports by territory, accounting reports and other such statistics.

GTW Executive Vice President John H. Burdakin joined with William Thompson, president of ACI Systems, to announce the contract. Thompson observed that "GTW will be the first railroad in North America with a completely integrated automatic information system on car movements, operations and revenues."



Remember some of the great buys of 1949?


1973
1973
GM
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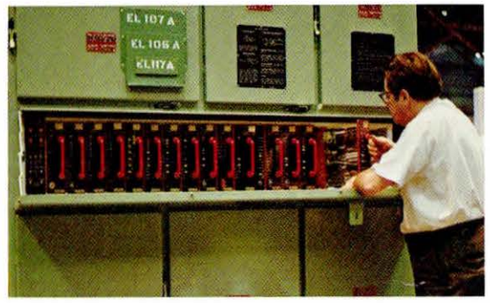
Modular control panel

The modular electronic control system on our new locomotives makes trouble-shooting fast. An annunciator locates and records the source of major malfunctions. And since each module controls a different electrical function, it's very easy to service—just plug in a new module while you test the old one back in the shop.

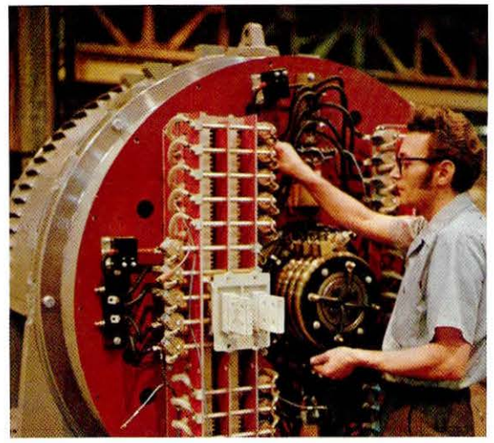


One-piece underframe and stress-resistant crankcase

The underframe and crankcase are the structural foundations for any locomotive. A rebuilt locomotive would rest on these fatigued components. Our new models have one-piece underframes that are stronger than ever before. The crankcases have added support in those areas most susceptible to stress, and we've eliminated water corrosion. The result—longer service life and a better foundation for your locomotive investment.

Alternating current generator

Our new a-c generators produce more power with fewer and simpler parts. And they eliminate some serious problems with old d-c generators — shunting and flashover, for example. The result — increased reliability, less downtime, and lower maintenance costs.



We've integrated other modifications into these major systems changes to give you increased fuel savings, cleaner exhaust emissions, reduced noise levels, and greater overall operating efficiency. Power contactors, pistons, piston rings, cylinder liners, cab insulation, and inertial air filter system — these are just a few of the components we've improved to produce a whole new standard of motive power.

A rebuilt locomotive can cost as much as a new one.

Many railroads have found that it costs no more to buy and operate new locomotives with these new components than to rebuild and maintain vintage 1949 GP-7's or 1954 GP-9's — even when the rebuilt locomotives are assumed to have a 15-year economic life span. That's because for these railroads, the operating cost savings they realize with the new components make up for the higher initial cost.

Give your fleet the net income test.

New EMD locomotives give you better reliability and maintainability. So you owe it to yourself to test your fleet on the probable effect a replacement program will have on net income. We can help you make the financial analysis.

GM
MARK OF EXCELLENCE

Electro-Motive Division
La Grange, Illinois

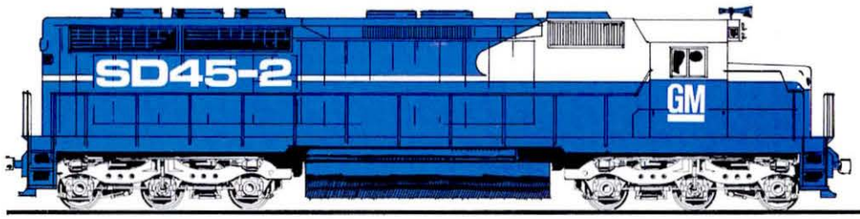
Here's how to keep getting your money's worth.

In the past ten years, the revenue ton-miles hauled by America's railroads have increased about 26%. Yet the total locomotive fleet has remained just about the same in size. Why? Because most railroads have maintained replacement programs that up-graded their fleets with new, improved locomotives that could do more work. Just think what would have happened to railroad earnings if the size of the locomotive fleet had also increased 26%.

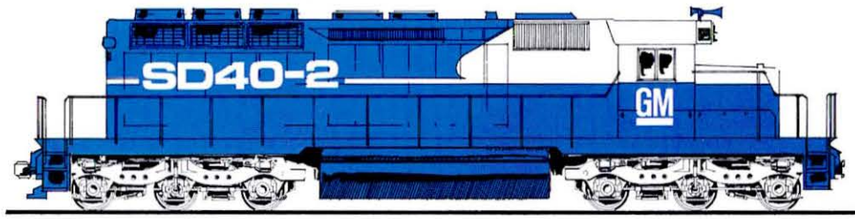
By 1980, the Department of Transportation projects an increase in revenue ton-miles of about 24% over what they were in 1972. To handle this business without a massive increase in fleet size and associated costs, railroads will need new locomotives that are stronger, more reliable and easier to maintain. Many old GP-7's and GP-9's still run well. But only new replacement locomotives can really handle the increased business effectively. That's because only these new locomotives can provide all the reliability and maintainability improvements we've made over the past 23 years.

Here are a few examples:

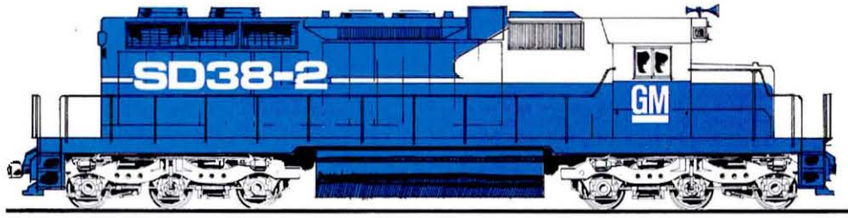
The 40-2 series– five standard road locomotive models



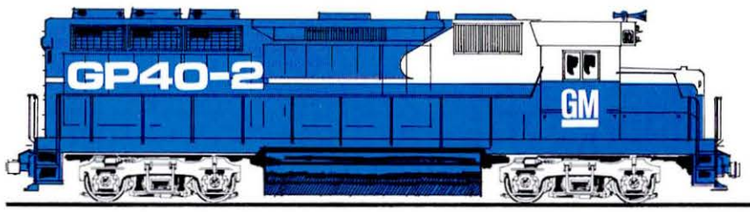
SD45-2
3600 horsepower
(turbocharged)



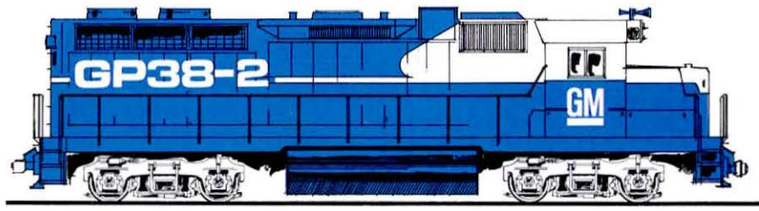
SD40-2
3000 horsepower
(turbocharged)



SD38-2
2000 horsepower



GP40-2
3000 horsepower
(turbocharged)



GP38-2
2000 horsepower

GM
MARK OF EXCELLENCE

Electro-Motive Division
La Grange, Illinois

Congress weighs three big plans

(Continued from page 10)

preliminary investigation. The office would preliminarily identify a restructured rail system. . .that would meet the present and future needs of rail transportation in those regions within eight months from the date of enactment. Public hearings would then be held and comments received and evaluated. By the tenth month the office would submit to the Commission a proposed final identification plan for a restructured rail system. Within one month. . .the Commission would submit the final identification plan. . .Following the identification of the final plan, the Commission would be required to submit to Congress its recommendations for securing the identified system and offering any amendments to the system necessitated by practical considerations."

Assisting the ICC's new office in the "identification" process would be two representatives of railroad management; two from organized railroad labor; two "experts" recommended by Congress; four representatives of shippers, passengers, consumers, environmentalists and communities; one recommended by the DOT; and four representing governors in the affected states.

● **Interim financing.** As for interim aid, Hartke said considerable money is now available to the bankrupt carriers under existing programs—e.g., the "Hurricane Agnes" bill and various provisions of the Amtrak bill. Penn Central alone, he suggested, can realize around $62 million from these programs. He is also proposing amendments to the Emergency Rail Services Act which would permit the DOT Secretary to pay up to $250 million for service contracts with "any railroad which has actually ceased operation or is about to cease operation."

As a further hedge against service shutdowns, Hartke won Senate approval July 14 of a bill (S. 1925) authorizing the ICC "to direct one carrier by railroad to operate over the lines of another carrier which is unable to transport the traffic offered it because: (1) its cash position makes its continuing operation impossible; or (2) it has been ordered to discontinue service by a court; or (3) it has abandoned service without obtaining a required certificate from the Commission."

As Hartke put it: "In the event railroads ceased operation prior to the authorization of direct interim relief or in the event that the Administration refused to extend such relief, S. 1925 would provide a means of assuring the continuance of essential rail service in the Northeast and Midwest."

Watching Washington

A DAY WITH CONGRESSMAN SISYPHUS (D.-WASH.)

On a small circular table in the office of U.S. Rep. Brock Adams (D.-Wash.) stands a gold statuette of Sisyphus—the Corinthian king who, legend says, was condemned through eternity to roll a stone up a steep hill, only to have it roll down again short of the top. At the end of a recent hot, busy July day—a day that began with two railroad presidents trudging into Adams' office to talk about the Adams plan for saving the Northeast railroads; a day that saw Senator Vance Hartke, on the other side of Capitol Hill, announce *his* plan for the Northeast; on a day, moreover, that saw the Administration shed no further light on its own fuzzy plan—the Congressman from Seattle gazed tiredly at his statuette and observed to a reporter, with a grin, "There are days when I feel like Sisyphus."

Although his own proposals were still a long way from the top of Capitol Hill, Adams remained cheerful and moderately optimistic. There was beginning to be, he thought, a "coming together" of minds on the Northeast problem—though in his own mind the coming-together process was dangerously slow: "If we don't get the mechanics going, in particular if the executive branch doesn't get busy, we're going to be overtaken by events." Was he discouraged by the Hartke plan? "No. Vance and I are not that far apart. I think our own plan is a great deal more sophisticated. Three things are basic to any plan: a restructuring of lines but not by DOT—Congress won't buy that; adequate financing; a good labor agreement. I'll support any plan that accomplishes these."

BROCK ADAMS
"I'll support any plan that works"

THE DOT PLAN: WHAT PLAN?

Was Adams encouraged that DOT had retreated, somewhat, from its no-Federal-aid stance? "I'm encouraged in that they are ahead of where they were before. But they treat this like it was some kind of an adversary proceeding. I'm hopeful that we can change that. You see, we picked up *their* proposal—which is a private enterprise solution using a private corporation with an ability to go in and buy out these bankrupt estates. All we did was to determine what was necessary to make it viable. What they are proposing is to create a corporation out of nothing. Actually, I don't know of anybody, really, that is supporting the Administration bill right now. Take labor—they can't accept the Administration's proposal, which is, 'We'll take what we need for the new corporation and everybody else can have a claim against the bankrupt estate.' Do you tell a man that in return for his life's work he can fight it out with other, and larger, creditors?" (Adams added that when his own plan is further along, he's willing to think in terms of a direct Federal grant, perhaps around $200 million, to help the new corporation pay for labor protection.)

Will the House report out a bill before the Aug. 3 recess? "I hope so. Liquidation is still a threat. It's the people who are practically involved who must tell the Administration, 'Your plan has got to be improved or it isn't going to move'."

IF YOU WANT US TO FIX YOUR "BRAND X" BEARINGS, WE'LL FIX YOUR "BRAND X" BEARINGS.

The Timken Company will remanufacture any AAR-approved freight-car journal roller bearings. Not just Timken® bearings. Anybody's.

You wanted us to change. So we did.

What else is new about our remanufacturing program?

For one thing: we'll send you reconditioned bearings before we get yours, so you can keep your cars in service. Because we know that in your business you've got to keep your cars running to put money in the bank.

We publish what we're going to charge you when we recondition your bearings. And this flat rate includes parts and labor. So you'll know from the start exactly what you're going to pay.

Incidentally, we don't plan to play favorites. We'll give those "Brand X" bearings the same thorough inspection we give Timken bearings.

And we're using a new, modernized assembly-line process and a special quality audit system to make sure we get the job done fast and efficiently.

We like to think you'll benefit from The Timken Company touch.

There's lots more that you should know about our expanded remanufacturing program. Call in your Timken Company sales engineer and throw some questions at him. He's got the answers.

The Timken Company, Canton, Ohio 44706.

The company that tapered the bearing can taper your bearing costs.

TIMKEN®
REGISTERED TRADEMARK
TAPERED ROLLER BEARINGS

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GREAT MANEUVERABILITY! Rugged dependability. The IC-75-MHC speeds to the derailment on highway or rail... crosses over rails without clearance difficulties... backs, turns with agility... lifts 75 tons with finger-tip control!

MODEL IC-60-RR lifts 60 tons with A-frame and winch configuration. Both vehicles serve as ideal yard service trucks with optional air reservoir for air brake testing... dual hydraulic service jacks. ISCO's RYD-A-RAIL conversion units feature hydraulic controls.

SWITCH RAIL CARS, SPOT SEMIS with the all-new **ISCO SHUTTLE WAGON Model 5-SW.** Pulls, pushes up to five fully loaded freight cars... for $1.00 a car or less. Versatile, quick on-off-track capability!

WRITE, WIRE TODAY for complete, detailed information about ISCO Mobile Cranes-Rerailers... and the ISCO Matchmaker concept and line of rugged, tailored industrial vehicles.

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ISCO Cline Rear Dump Haulers | Horizontal Unloading "EJECT-ALL" Vehicles | ISCO Railroad Trucks | RYD-A-RAIL Conversion Units | SHUTTLE WAGON: Rail Car Switchers and Semi-Trailer Spotters

Calendar

Mechanical officers will be meeting at the Pick Congress in Chicago where the sessions of the **Coordinated Associations** are to be held Sept. 10-12.

The annual meetings of the **American Railway Bridge & Building Association** and the **Roadmasters & Maintenance of Way Association** are scheduled for the Conrad Hilton in Chicago, Sept. 17-19.

The annual meetings of the **AAR Communication and Signal Section** and the **AAR Data Systems Division,** along with the exhibit of the **Railway Systems Suppliers,** are scheduled for New York's Americana Hotel, Oct. 1-5.

The annual meeting of the **American Society of Traffic & Transportation** will be held Aug. 22-24 in the San Francisco Hotel, San Francisco, Calif.

The U.S. Department of Commerce and the Transportation Association of America will sponsor the 1973 **National Cargo Security Conference and Exhibit** at the Hyatt Regency O'Hare, O'Hare International Airport, Chicago, Sept. 6-7. Theme of the conference will be "Cargo Security–A Report on Local Actions."

The importance of energy to international transportation will be the prime topic at the **Traffic Clubs International** 50th annual educational congress in Montreal, Sept. 9-12.

The fourth annual **Delaware Valley Regional Transportation Conference** will be held Sept. 11-12 at the Sheraton Hotel, Philadelphia.

The **Intersociety Conference on Transportation** will be held Sept. 24-27 in Denver, Colo. A feature of the conference will be a Sept. 26 tour of the High Speed Ground Test Center near Pueblo.

The **Second International Symposium on the Transport & Handling of Minerals** will be held in Rotterdam, The Netherlands, Oct. 1-5. It will feature papers on the discharge, stockpiling and reshipping of the variety of mineral products. Two technical tours have been arranged for the delegates to inspect mineral discharge and reshipping terminals in Antwerp and Rotterdam.

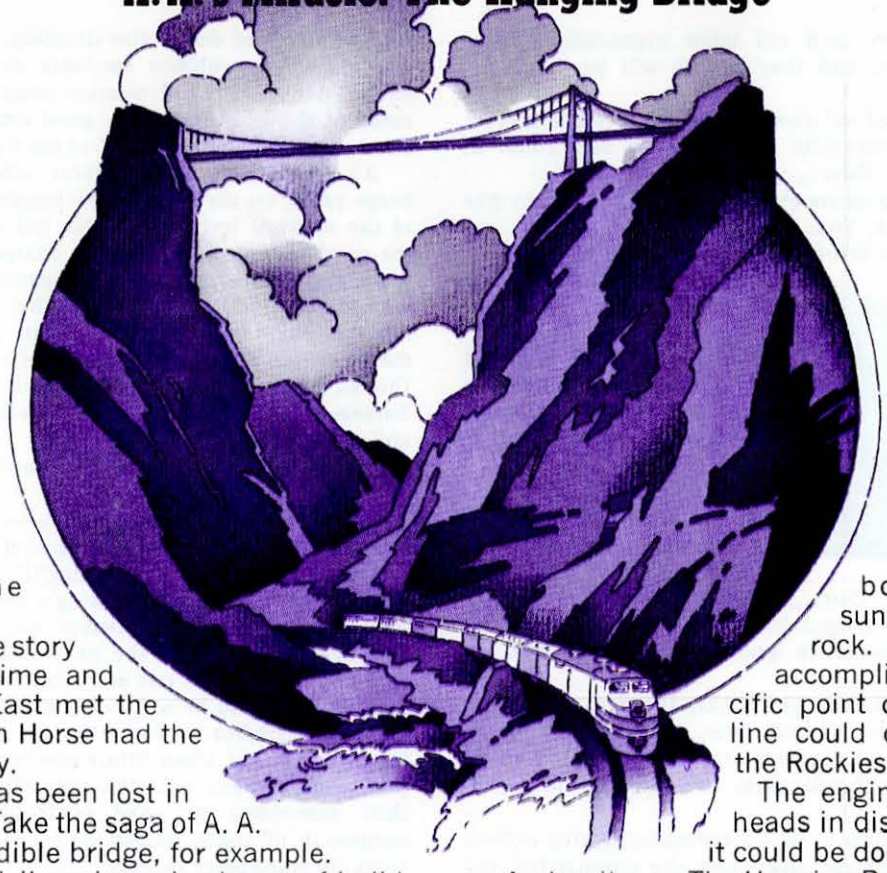
The **Fifth National Transportation Forum** of the Transportation Data Coordinating Committee is tentatively scheduled for Dec. 4-5 at the Statler Hilton Hotel, Washington, D.C.

The already scheduled 1974 meetings of the **National Railroad Piggyback Association** are set for Jan. 23-25 (Sahara Hotel, Las Vegas, Nev.), and May 14-16 (Marriott Hotel, Atlanta, Ga.) NRPA also will hold a meeting in San Francisco in September 1974.

The next exhibit to be sponsored by the **Railway Engineering-Maintenance Suppliers Association** will be held Sept. 29-Oct. 3, 1974, in Donovan Hall of Chicago's International Amphitheatre. The exhibit will be held in conjunction with the annual conventions of the Roadmasters' and Bridge & Building Associations, to be held in the Palmer House.

GREAT MOMENTS IN RAIL

A. A.'s Miracle: The Hanging Bridge



Remember the Golden Spike?

You should. The story has been told time and again. How the East met the West and the Iron Horse had the run of the country.

But so much has been lost in the storytelling. Take the saga of A. A. Robinson's incredible bridge, for example.

A. A. was the civil engineer in charge of building a 9½-mile rail line across, through, over, or around Royal Gorge, one of North America's most prodigious chasms. Perpendicular walls. Raging cataracts below that make the Niagara Gorge look like a placid stream.

The torrents of the Arkansas River prevented the use of piers. Going around the obstacle was impossible, too; the maximum gradient had already been achieved. Tunneling? Negative. A. A.'s project was running low on funds as it was. Plus, the public was clamoring to get an east-west link fast.

It was after days of intense thought that the idea finally hit A. A.—"*Hang* the bridge across the ravine!"

Robinson immediately asked his bosses for a surveying study. He wanted to know if it was possible to cut a 12- to 18-in. path in the face of the cliff to support iron girders. The rail would then be suspended from the girders and secured to the cliff face by bolted brackets sunk deep into the rock. If this could be accomplished at one specific point of the gorge, his line could continue through the Rockies.

The engineers shook their heads in disbelief, but, "Yes, it could be done."

And so it was. The Hanging Bridge was erected. And though it had to be restored and beefed up a number of times to accommodate heavier trains, A. A.'s miracle bridge still hangs over Royal Gorge.

L. B. Foster Company makes the miracles today.

A. A. Robinson's bridge is just one example of how ingenuity can solve a delicate rail problem. Since that day when the golden spike bit the tie, technology has conquered thousands of tough, once-impossible-to-solve problems.

And L. B. Foster Company has done its share of finding the solutions. Simply because we handle the nation's largest supply of rail and rail accessories and deliver them from strategically located stockpiles across the continent.

We have the experience to solve your rail problems. And the know-how to deliver your order to you as fast as possible.

For more on our rail capabilities, write L. B. Foster Co., Seven Parkway Center, Pittsburgh, Pa. 15220.

FOSTER

L.B.FOSTER COMPANY

Circle 11 on coupon page 43

Profit through productivity: The

1. Rail management and rail labor organizations have always been enemies, and they always will be. True___. False___.

2. The real course of rail management/labor relations is set by small groups of powerful men, meeting in a room in Washington. True___. False___.

3. The best way to secure employee cooperation is to give 'em a touch of the lash. True___. False___.

4. Rail unions are hell-bent to get the industry nationalized, so that they can live off Uncle Sam. True___. False___.

5. The average railroad employee is into railroading for the paycheck, the fringe benefits and nothing more. True___. False___.

6. If you can't get a militant local union officer out of his job any other way, the best thing to do is to promote him into management. True___. False___.

7. A supervisor is judged by the number of claims he rejects and by his success in ignoring grievances. True___. False___.

8. If you just hire enough MBAs, the future of your railroad's management is assured. True___. False___.

9. National work-rules agreements are useless, because nobody either understands them or lives up to them. True___. False___.

10. Work-rules reform is best attained by serving notices which begin "Management shall have the unrestricted and unilateral right to. . ." True___. False___.

* * *

The "quiz" could go on and on—with, for instance, such other True-or-False statements as "The sole concern of a union officer is his re-election," or "The industry benefits from having so many unions, because that way no individual group has much clout," or even "No problem is really insoluble, it's people that make it so."

And of course, as the "quiz" is set up, there isn't a "True" answer in the lot, not even that last one about insoluble problems and people. But, it's a pretty safe bet that those same T/F statements would have produced more than a few "True" answers from the average management *or* union "class" just a few years ago.

What's happened? For one thing, both management's leaders and labor's leaders have begun to back, by their actions, the cliches that have always been spread around: People are our most important asset. And, we're all in this together. And, a better, stronger industry means better, more secure jobs.

It's meaningful, that both major operating unions have agreed to work-rules modification. It's even more meaningful that broad—and sometimes ambiguous—agreements hammered out at the national level have undergone cooperative interpretation so that they can be made to work more smoothly at the local level.

It's meaningful, that railroad and union negotiators were able to reach contract agreement this year, well in advance of the contemplated "deadline."

It's meaningful, that a top labor leader decries the lack of real collective bargaining over the past 25 years or so and urges *both* management and labor to put an end to that kind of disruptive and destructive situation. It's meaningful, that a top industry negotiator lambasts an old system that encouraged disputes, and worries constantly about improvement of things down where good employer/employee relations actually begin, which is at the first level of supervision.

It's meaningful, that a senior officer of a major union heaps praise on the people now handling industry bargaining at the national level—and hopes rail management will have the good sense to keep them in charge. It's meaningful, that more and more railroads are beginning local-level management/union talk sessions, and that more and more top managements are making it clear to middle and lower management that dedication to efficiency and economy, though laudable, shall not outrank dedication to justice, fairness and decency in the relationship between supervisor and supervisee.

It's meaningful, that railroads and unions are making a joint and sincere effort to rescue the floundering Railroad Retirement system, and that they were able to tie Railroad Retirement and other issues together into a package in the recent negotiations. It's meaningful, that railroads and the operating unions are also making a joint and sincere effort to see if there isn't some better way to reward operating employees' labors than the present mishmash involving the so-called dual basis of pay and arbitraries and so forth.

Nobody would be so foolish as to argue that the days of management/labor confrontation are past. But it is encouraging to know that when future confrontations do come, most (if not all) of them will come only after both sides have done their damnedest to avoid confrontation—and not as an outgrowth of token bargaining in which one or both sides looks for third-party bailout.

The improvements that have been made, however, have carried an inevitably-high price tag. Wage increases, fringe-benefit gains, employer assumption of Railroad Retirement employee-contributions over and above Social Security levels—all of these have drained and will continue to drain precious dollars from depleted treasuries. And, while there have been some savings—and there will be more—from work-rules modification and settlement of the fireman-manning dispute, the fact remains that the industry's big immediate hope in this area doesn't rest on reduced costs but rather on now-possible service improvements which, hopefully, will help to build up the revenue base.

In the context of cost-savings, it's useful to look back about a year to a submission made to the Federal Pay Board on continuing implementation of then-effective agreements, in particular the Jan. 27, 1972, agreement covering employees represented by the United Transportation Union. Fifteen roads were surveyed, coverage that included almost 80% of Class 1 employment. Savings were estimated where they could be—on provisions of the agreement related to extension of switching limits, the serving of old industries located outside switching limits, use of road crews to deliver solid trains, reciprocal interchange, road/yard movements and extended runs.

Work-rule savings: They're not all that big, and they vary from this road to that.

In this study, aggregate monthly savings reported came to something over $1.2 million. Projected, annual savings were estimated at about $15 million for the roads covered and at about $20 million for the entire industry.

And, as the National Railway Labor Conference pointed out at the time, "There are substantial variations in savings as between one railroad and another. . . .For example, there are

people-potential

By GUS WELTY, Senior Editor

Change won't come quickly but it will come—in terms of greater cost reduction and improvement of service

differences which existed prior to Jan. 27, 1972, in the degree of restriction on effective and productive utilization of employees in certain situations which the agreement corrected. There are differences in the extent to which, by taking advantage of the agreement provisions, certain railroads were able to eliminate costly operations or to rearrange operations to cost-saving effect. Too, differences in operating and traffic conditions make some of the agreement provisions meaningful to some railroads but relatively unimportant to others." Dollar figures were also affected by protective conditions, as NRLC also noted: Under the UTU agreement, "as well as under certain other agreements and orders of regulatory authorities, individual employees are protected, in certain situations, either from loss of earnings due to certain causes or in their rights to work. However, as they or other individual employees retire, die or otherwise leave the service, the number of protected employees will decline. For the most part, these offsetting costs have not been taken into account in arriving at the estimated savings. The bulk of the savings reported by the 15 roads represents the potential savings attributable to the current degree of work-rules implementation after the protective-provisions cost have been worked off. Of course, with the passage of time—measured in years—as attrition reduces the protected work force, all protective payments will dry up and the full potential savings will be realized."

So, change comes slowly—but it does come. In that same report, NRLC added up changes in operations made in just one month-and-a-half period by the 15 surveyed roads:

—Switching limits were extended at nine additional locations.

—Thirteen additional "old" industries were being served by yard crews.

—Solid train interchanges had been inaugurated at five additional locations, with 30 more solid trains per week being interchanged.

—Reciprocal interchange arrangements had been established at 14 additional connections, with 116 more movements per week.

—Two extended runs not operating through home terminals were discontinued; "with some increases in reported trips on other runs, there has been a net reduction of 195 trips per week in such extended service."

—One additional extended run operating through a home terminal had been established, adding 23 trips per week in the extended service. Eight more extended runs had been proposed, of which three would operate through home terminals and five would not.

In cost terms, what all of the implementation meant at that point was that current estimated savings were adding up to about 0.8% of operating-employee payrolls. (A second area of savings also reported to the Pay Board covered economies from the combining of clerks' and telegraphers' seniority rosters, and here the net savings on those roads which had actually gone through a merger amounted to 0.4% of clerk-telegrapher payrolls.)

Savings, obviously, have been rather minimal, while wages have gone steadily up—by anywhere from a bit more than 50% to almost 60% for employees represented by 15 major unions during the period 1967-73. (Not included in this reckoning are the 4% wage boost due next Jan. 1 and the net effect on take-home pay of the railroads' taking over that part of employee Railroad Retirement taxes that exceeds Social Security.)

In the meantime, taking the period 1967-72, statistics on railroad performance added up to a mixed bag: Carloadings down, originated tonnage up slightly, revenue ton-miles up quite a bit. Operating revenues up substantially, operating expenses likewise. Net railway operating income up, ordinary net income down, net working capital down alrmingly. Dividends down. Net investment up, with capital expenditures holding at respectable levels. Payroll up, employment down— and with 1967=100, the 1972 wage/benefit index hitting 153.7 Railroad share of the intercity freight market? Down.

Under the circumstances, anybody who tried to make too much of charts and graphs to prove or disprove "facts" about productivity is a bold man indeed—and maybe a foolhardy one, because it can sometimes be rather difficult to protect your flanks. If, for example, you argue that increased ton-mile performance with fewer employees adds up to improved productivity, you face a counter-argument that railroads today are getting fewer ton-miles per payroll dollar than they were in '67. And always, there is the contention that the real "productivity" gains have come primarily as a result of the industry's continuing to pump capital into plant and equipment, to the tune of something like $14 billion over the past 10 years.

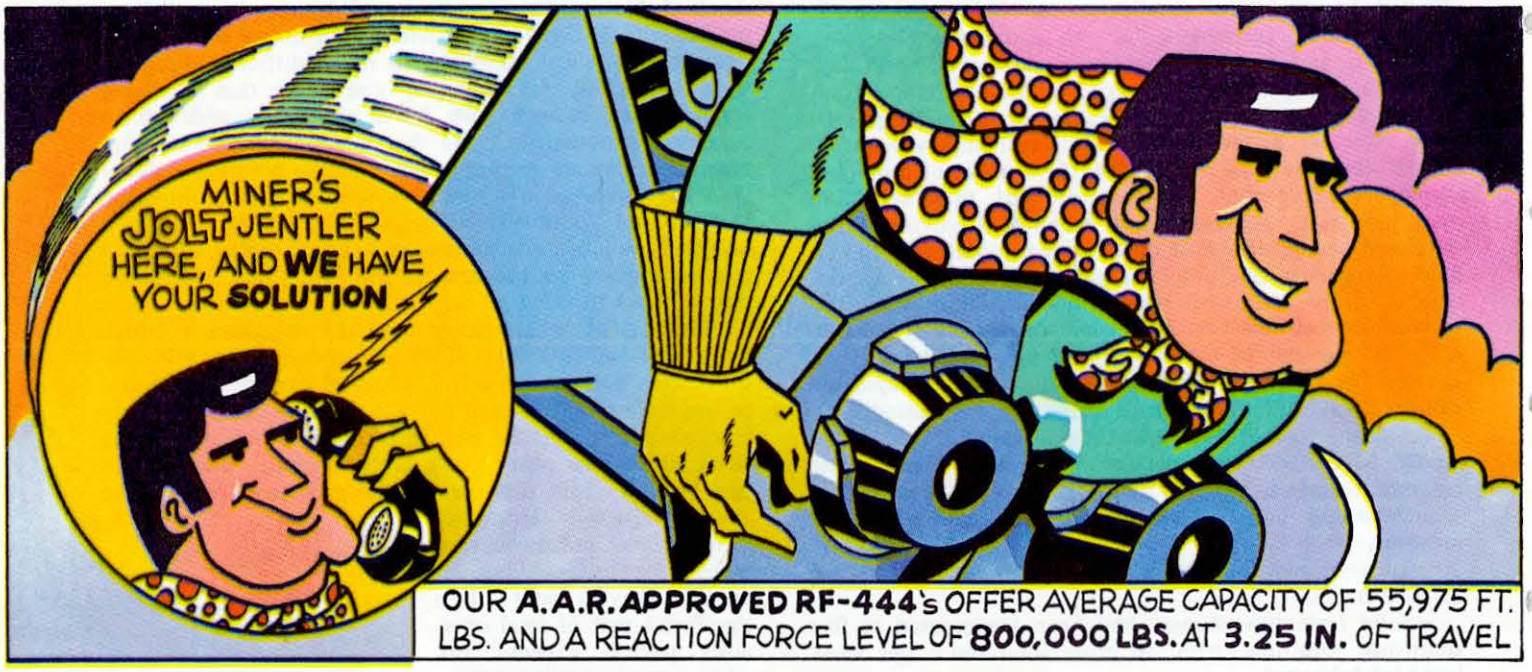
(Productivity measurement isn't the only area in which honest men on both sides of the management/labor table can find themselves wandering in a statistical swamp. Carriers and unions have recently made perhaps the most elaborate study ever conducted on the dual-basis-of-pay problem—and the study surely does prove that a problem exists, in some good part because of the differentials that exist from one road to another: To one carrier, arbitraries may not mean very much, for instance—but to another, they've come to be a significant part of total operating payroll expense. So, while some progress may in fact be made in trying to resolve this old problem, the indications are that progress will not be made easily, in spite of the good intentions of the men working on the issue.)

Productivity: There's work to be done in management as well as among unions

When such things as "profit" and "productivity" are equated, however, there's a common tendency to think and talk of performance only in terms of what the contract employee does. Exempt employees—officers, supervisors at all levels—are no less involved. And the problems in the ranks of management are no less significant to an industry that has to strive for the most effective utilization of *all* of its people.

Consider, for example, the matter of recruiting for management jobs. Most roads have active, though sometimes inconsistent, recruiting programs on the college and university campuses. Most roads also try to recognize talent-in-the-ranks and give it a chance to move up. Here, there are no real statistical measurements (even confusing ones), but there *is* a feeling that for one reason or another, too many potentially good people get lost somewhere in the recruiting-training-promotion process. It may be partly because too many "wrong" people are being recruited. It may be partly because of a breakdown in the field, with supervisors who are at a loss to know how to provide training, except to say "Watch how I do it." It may be partly that today's lifestyle simply doesn't accommodate or accept the "management boomer" tradition of every-year-or-so a different job, a different town,

(Continued on page 34)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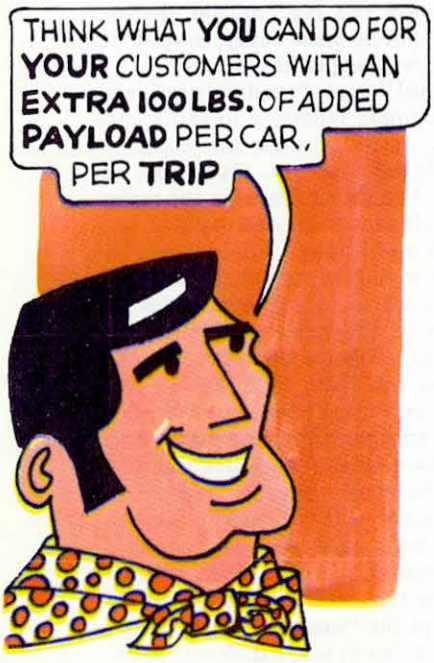

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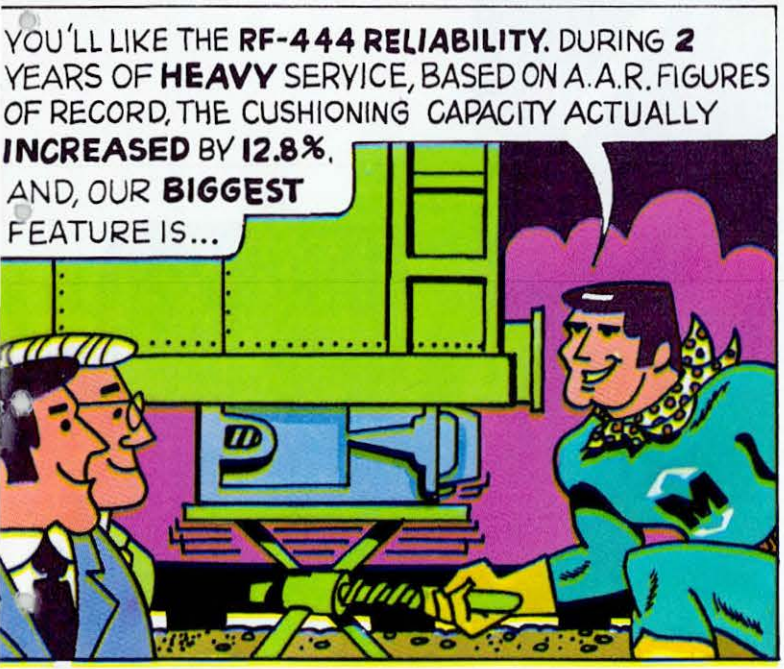
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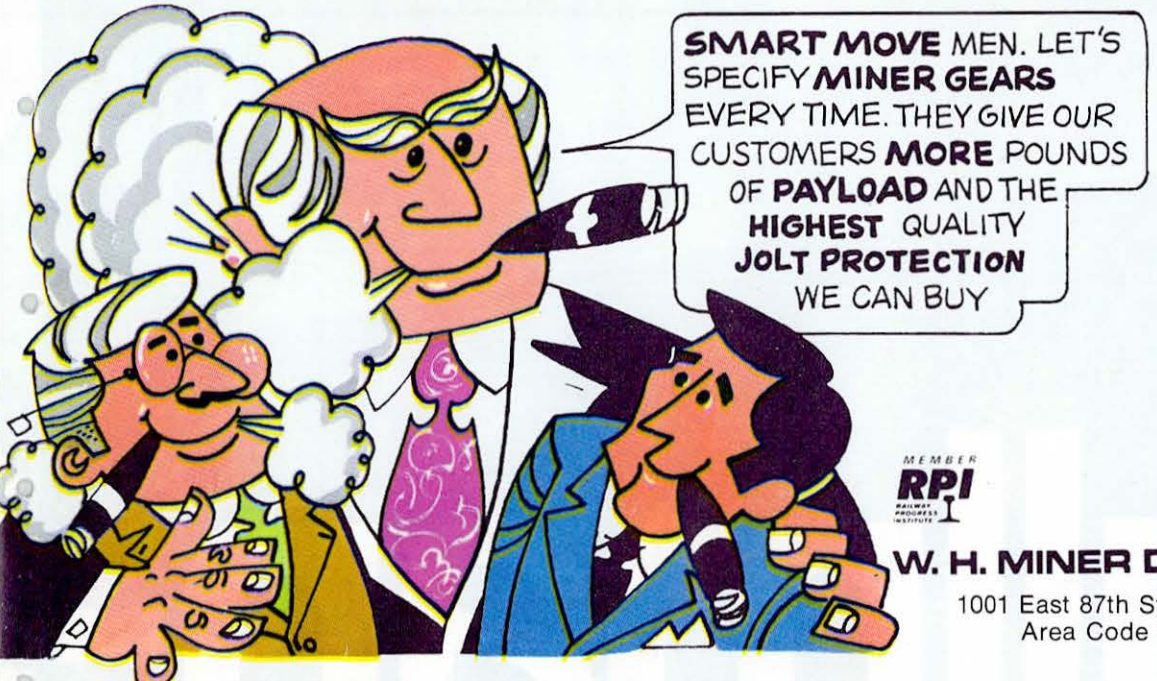
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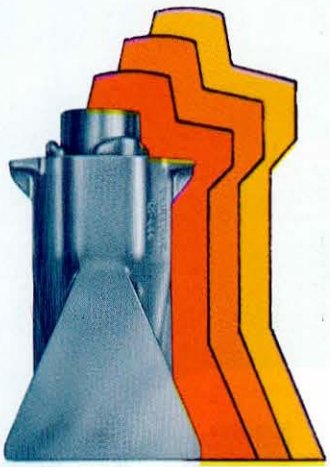

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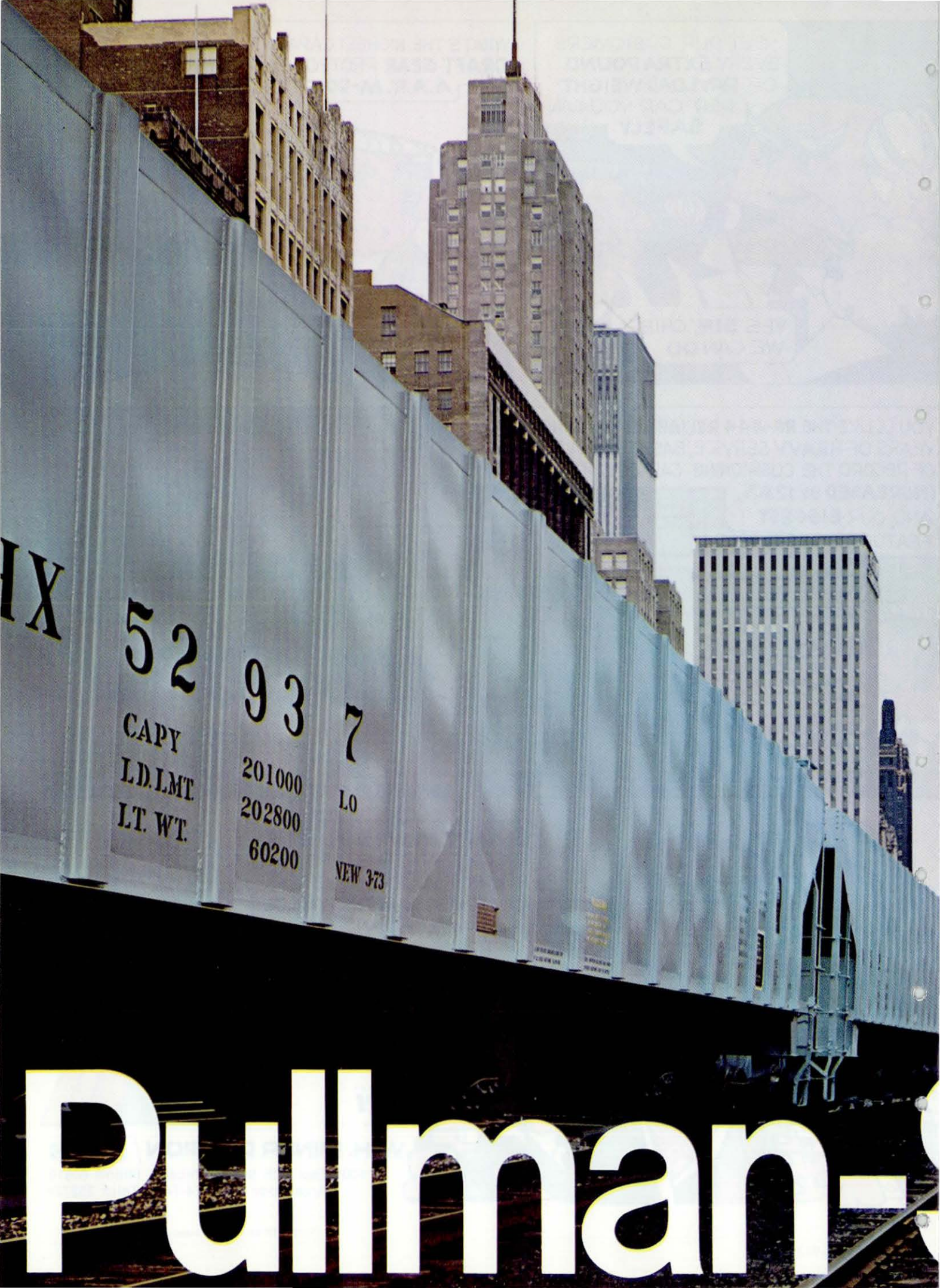
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Standard

(Continued from page 29)

Management development: The problem of keeping the good people on their way up can rank as the biggest

a different house, different neighbors.

Whatever the reasons, railroads are coming increasingly to recognize that constant monitoring is an absolute necessity, if the managerial pipeline is to be kept full and flowing smoothly—and that means monitoring of all phases of management development.

Training? That's another part of the story, and another part of the total problem. Internally and with help from the outside, many roads have been building training programs that try to educate by showing the best-way, not just the way things have always been done. And the list of innovations—in technology and technique—is a long one. For instance, locomotive simulators, in use now on several roads, should be producing better locomotive engineers, more quickly. Use of videotape and sound-tape cassettes is spreading—and, hopefully, developments in this field can soon be better coordinated, to cut down on duplication of effort by making available material available broadly through the industry. In sales training, especially, training aids are getting better and so are training techniques.

And then, there's the problem of retention—keeping the good people moving on through the management pipe. This, unfortunately, is a part of the process where the best recruiting and training programs can come unstuck—because a big factor in it is consistency, a smooth and steady progression upward. And it's a fortunate railroad that has the managerial patterns related to age, experience and so forth that permit that smooth and steady progression. So, you have Railroad A, which figured it didn't need or couldn't afford a significant recruiting/training effort for a few (e.g., five or 10) years. Now, it finds itself with a gaping age-group hole in management. Then, there's Railroad B, which year after year went out and hired or brought up from the ranks a bundle of management trainees. Railroad B overdid it. Now, it sees its recruiting/training money going to benefit other railroads or maybe its customers, because the bright young men have been stalled in their upward movement and they're going someplace else where they see more opportunity. Railroad C, meantime, did its actuarial homework, figured rather precisely how many people it would need and for what, and went out and got, trained and kept them.

Of course, most major roads are also into management development in ways somewhat removed from the training and developmental work that can be done on the property itself—ways that involve sending both senior and junior officers to the better business and engineering schools, ways that involve tuition reimbursement for job-related education that individuals go out and get on their own. More of this kind of educational programming would undoubtedly help. But so would outside development of another sort—including loan-out or trade-off programs involving railroads, government and customers. Not a lot of this is going on, and perhaps more should be—because it's hard to see how a man could fail to benefit both himself and his company.

Productivity, profitability and people: There's reason to expect a better meshing

Considering both the contract and the exempt employee, then, what are the prospects for the industry's coming closer to realizing the full potential of its people? Those prospects aren't really bad. Much progress remains to be made—but, at the same time, much progress *has* been made. Consider a few points that can be related to people, to productivity, to profitability:

—With the help of rational new labor agreements, railroads *are* performing a more efficient and more dependable service. Obviously, the hope is that future agreements will help the industry to move further down the line to efficiency and dependability, benefitting all concerned.

—Protective costs related to a host of current agreements, while high now, will gradually be reduced.

—Management and the labor organizations *are* talking at all levels and, beyond the talk, they're exhibiting a strong desire to make executed agreements work.

—The Northeast crisis (including the ongoing Penn Central/UTU crew-consist dispute) *is* coloring union thinking and affecting the possibilities of management/labor innovation far beyond the boundaries of PC and the Northeast. But the crisis has to be disposed of somehow, sometime. When it is, one way or another, innovation could come more easily.

—The people handling bargaining on both sides are, for want of a better word, "better" than they have been on occasion in the past. Reasonable and rational men are recognizing that problems are not the sole possession of one side or the other, and they're working on problems together.

—While there may have been some doubt or ambiguity or misunderstanding in the past regarding the goals that first-level supervision assumes it's supposed to be working toward, things are changing. Supervisors are still charged with running a tight operation. But top management is making it increasingly clear that this does not mean sticking it to the employee at every opportunity.

—With improved relations between supervisory and supervisee at all levels, antagonisms should be reduced. And that should reduce the pressure on politically-oriented union officers to stick it to management at every opportunity. Negotiators should be better able to address themselves to the issues, rather than having to be concerned about making a showing for the constituency.

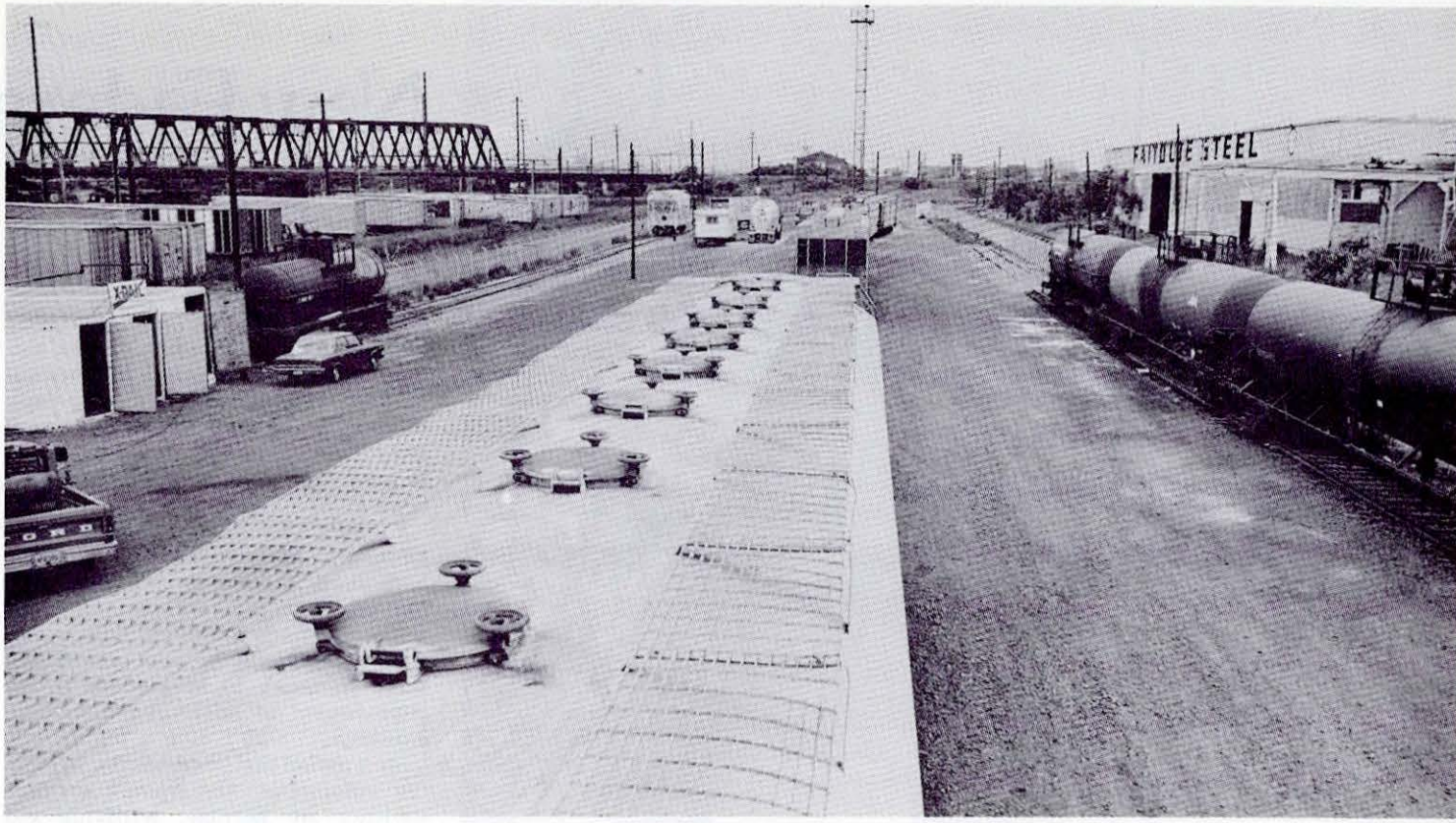
Despite mutual and separate problems, management and labor are moving ahead

—*If* management and labor can settle problems as they've been able to do in the past couple of years, government may be encouraged to (and may even be glad to) keep its clumsy hand out of things. On occasion, probably, the dispute-settling provisions of the Railway Labor Act will still have to be brought into play. But, from present indications, both the railroads and the industry are ready to make true collective bargaining work again. And not in the sometime-sense in which one side bargains while the other side collects. Now, the feeling is that (1) change is needed, (2) change can be accommodated, and (3) constructive change will benefit owners, managers, employees, users.

There is, of course, a tightrope to be walked. Under revenue/expense pressure, rail management can only go so far. Under the equal reality of political pressure, union management can only go so far. On management's side, however, proposals aimed at business-building service improvement are talking on new weight, complementing proposals which are more cost-oriented. On labor's side, there is more recognition that there are times when a bit of daring is needed. More than one labor negotiator can tell a story in which "we saw a need for a change—and even though our members were kicking and clawing and scratching, we agreed to make the change. And what happened? After they'd lived with the change for a while, they'd kick and claw and scratch if we ever tried to roll things back and get the old agreement reinstated."

Over the years, both rail management and the organizations have thrown acid on what should be the decent image of a vital industry. Now, finally, it would appear, both management and the organizations have put down the acid bottle and picked up the polishing cloth.

Labor is less inclined to taunt management with that golden oldie, "the public be damned." You don't much hear the word "featherbedding" from the management side. The impression you get is one covered by a new slogan: The public be served—and we'll both make a buck. Together. ■



FACILITIES such as this at Newark hold up to 100 tank and covered hopper cars and have variety of transfer systems.

Nationwide bulk terminals being set up

A new chain of rail-served bulk transfer terminals for dry and liquid commodities is taking shape nationwide. X-Rail Systems, based at Newark, N.J., has opened intermodal transfer facilities at Newark, served by Lehigh Valley; at Cincinnati and Chicago, served by Norfolk & Western; and at Oakland, Cal., served by Western Pacific. Scheduled for opening next are Cleveland and Houston, Tex. A dozen more of these intermodal facilities are being planned by XRS.

Intermodal transfer terminals making possible the economies of railroad line haul and the flexibility of highway distribution from strategic points are not new. New York Central introduced what is today's Penn Central Flexi-Flo service nearly a decade ago (RA, Mar. 9, 1964, p. 13). Chessie System has its TBS and other roads serve similar bulk terminals operated by local truckers.

Norfolk & Western, which has been a particular booster of X-Rail, already has a series of independent operators at a half-dozen line points. X-Rail, with its coast-to-coast operation, is offering a graduated scale of incentive transfer charges, based on a customer's volume handled through all its facilities. "Large firms which want to deal with one operator to the maximum extent possible should have great interest in this marketing arrangement," observed one railroader recently.

N&W worked closely with H. J. Quis, X-Rail president, as the system was under development. John McMichael, N&W vice president-pricing and marketing, says the railway is enthusiastic about the location of initial operations on its line and predicts a bright future for both XRS and N&W bulk traffic.

McMichael makes the point that "increased equipment utilization and a more efficient level of service for shippers makes this intermodal concept a valuable addition to the total transportation service offered by N&W." N&W is selling aggressively all the bulk distribution arrangements offered along its lines.

Says Quis: "We feel the ability to offer one central contact point, one quotation source, one quality control center and an incentive pricing plan will be of great interest to the shipping community."

All X-Rail terminals are equipped with certified truck scales, steam and liquid and dry-bulk pumps. Each terminal, capable of holding 50 to 100 cars, is located near a major freeway in the heart of an industrial marketing area. At terminals in major port areas there is the capability of transferring from special ocean-going bulk containers into rail cars or highway vehicles, for the lowest cost transport to inland points.

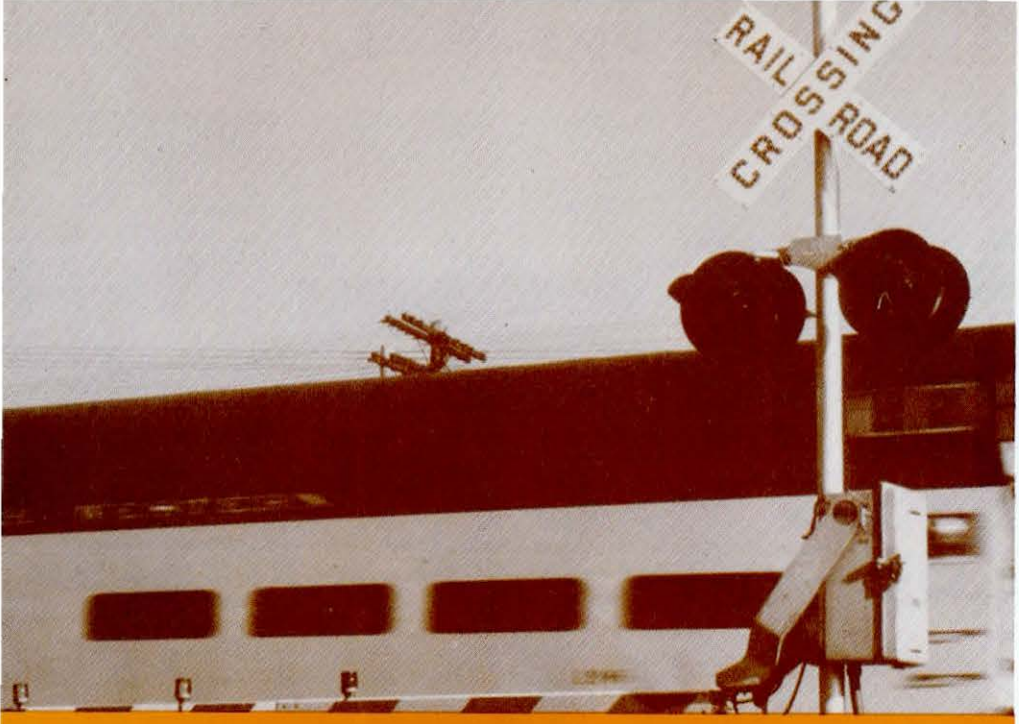
Among commodities which can be handled are a full range of liquids and dry commodities including chemicals, plastics, bulk edibles (starch, vegetable oils, corn syrup); agricultural materials (e.g., fertilizers) petroleum products (e.g., lubricating oils); and construction aggregates. X-Rail is also planning to offer truck and car cleaning at its terminals.

N&W says that terminals operated by privately owned and specialized companies offer several advantages:

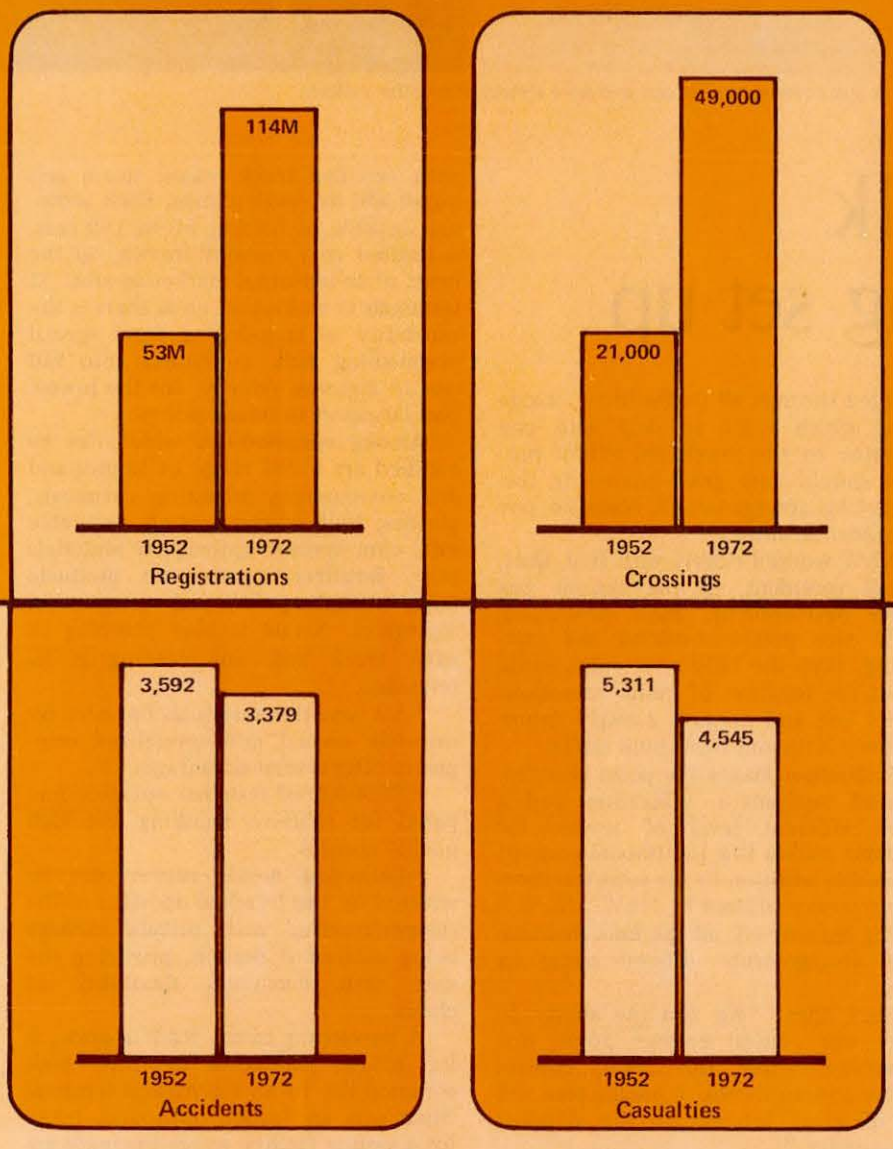
—Experienced terminal operator prepared for efficient handling and high quality control;

—Delivering motor carriers can be selected by the terminal operator or the shipper/receiver with private carriage being utilized if desired, providing the user with maximum flexibility of choice.

A developing trend, N&W reports, is for off-rail producers to truck bulk commodities to an intermodal terminal when cars are loaded outbound, often for a similar facility where the loads are again distributed by truck. ■



In 20 years motor vehicle registrations have more than doubled
. . .but "actively protected" crossings have grown even faster



Crossing accidents are down. . .and casualties even more

New Federal

By ROBERT W. McKNIGHT
System Controls Editor

In a nation that last year killed more than 56,000 persons in motor-vehicle accidents (and injured about two million seriously enough that their normal routine was disrupted for at least a day), maybe it seems unimpressive that something more than 1,200 persons managed to get killed in motor-vehicle/train accidents at grade crossings.

It isn't. Witness, expenditures that railroads and governmental agencies have been making to provide better protection at crossings. Witness, Congressional interest which now seems almost certain to produce substantial sums of money to be invested in the improvement of safety at rail/highway crossings.

In a nation that, increasingly, lives by the automobile, the over-all accident statistics are horrible, terrifying—and more than a little frustrating to people who try to do something about cutting down the carnage. You chip away—trying to put investment where it can do some good. And rail/highway crossing safety just happens to be one area where that "some good" can happen. That's why money has been and will be spent. That's why the crossing-accident figures are looking better.

Over the past decade, rail/highway grade-crossing safety has continued in a steady trend of improvement. In 1972, for the sixth straight year, total accidents at grade crossings declined, according to Federal Railroad Administration figures released recently. For '72, there were 3,379 accidents which took the lives of 1,260 persons and injured 3,285, with all figures down from the previous year. For the 20 years ending in 1972, accidents at grade crossings declined by 5.9%, while casualties decreased by 14.4%. Fatalities dropped by 10.4% in the decade and injuries declined by 15.8%.

● **Public awareness counts.** Probably the greatest single factor accounting for the greatly improved safety at rail/highway grade crossings is the increased interest and awareness of the hazards at these crossings and the problems connected with protection of the motorist. Other factors that should be considered as contributing to improved safety performance include:

—Continuing educational programs at all levels by schools, safety and public service groups, governmental agencies and the railroads.

—Installation of automatic protective

money for crossing protection?

devices at some 1,500 rail-highway grade crossings annually.

—Cooperative programs for improving safety at crossings carried out by Federal, state and local governments and by the railroads.

—More funds being made available by state and local governments for crossing improvements.

The big boost, however, could come from proposed Federal legislation, now in a House-Senate conference committee, which offers specific appropriations for installing protective devices at rail-highway grade crossings. A key point in one proposal: Provision of funds for installation of protective devices. At this writing, Washington observers feel that such legislation will be forthcoming, probably about September.

As of now, the Senate has passed a Federal Aid Highway Act of 1973 (S.502) and a Highway Safety Act of 1973 (S.893). The House has passed its version of S.502, which also includes safety provisions.

(To keep the Interstate Highway System from stalling, both houses approved and sent to President Nixon an interim measure calling for $1.5 billion in emergency construction funds.)

● **Crossing money safe.** One of the major problems involves resolution of the conflict over tapping the Highway Trust Fund for mass transit. The Senate says "tap it for transit," the House has been saying "absolutely not."

Informed sources indicate, however, that there is really no disagreement over action to be taken concerning grade-crossing funds for improved safety, (though some feel that a separate bill may come out of the House-Senate conference on the safety aspects of the Highway Aid bill; thus, the mass-transit funding problem would be dealt with separately).

Of specific interest to railroads and railroad suppliers (particularly the eight manufacturers that now supply automatic protection devices and controls), is Section 203 Rail-Highway Crossings, of the approved House version of S.502:

"Sec.203 (a) Each State shall conduct and systematically maintain a survey of all highways to identify those railroad crossings which may require separation, relocation or protective devices, and establish and implement a schedule of projects for this purpose. At a minimum, such a schedule shall provide signs for all railroad/highway crossings.

"(b) In addition to funds which may be otherwise available to carry out section 130 of title 23, United States Code, there is authorized to be appropriated for projects for the elimination of hazards of railway/highway crossings $150,000,000 for the fiscal year ending June 30, 1974, $225,000,000 for the fiscal year ending June 30, 1975, and $225,000,000 for the fiscal year ending June 30, 1976. Two-thirds of all funds authorized and expended under authority of this section in any fiscal year shall be appropriated out of the Highway Trust Fund. At least half of the funds authorized and expended under this section shall be available for the installation of protective devices at railway/highway crossings. Such sums shall be available for obligation in the same manner and to the same extent as if such funds were apportioned under this chapter.

"(c) Funds authorized by this section shall be available for expenditures as follows:

"(1) Two-thirds for projects on any Federal-aid system (other than Interstate System);

"(2) One-third for projects on highways not included on any Federal-aid system.

"(e) Each State shall report to the Secretary of Transportation not later than Sept. 30, 1974, and not later than Sept. 30 of each year thereafter, on the progress being made to implement the railway/highway crossings program authorized by this section and the effectiveness of such improvements. Each State report shall contain an assessment of the costs of the various treatments employed and subsequent accident experience at improved locations. The Secretary of Transportation shall submit a report to the Congress not later than Jan. 1, 1975, and not later than Jan. 1 of each year thereafter, on the progress being made by the States in implementing projects to improve railroad/highway crossings. The report shall include, but not be limited to, the number of projects undertaken, their distribution by cost range, road system, nature of treatment, and subsequent accident experience at improved locations. In addition, the Secretary's report shall analyze and evaluate each State program, identify any State found not to be in compliance with the schedule of improvements required by subsection (a), and include recommendations for future implementation of the railroad/highway crossings program.

"(f) Funds authorized by this section may be used to provide local government with funds to be used on a matching basis when State funds are available which may only be spent when local government produces matching funds for the improvement of railroad crossings."

● **Crossing inventory begun.** One of the key points in the proposed legislation is that states should identify their rail/highway crossings and plan for improvements. FRA and the AAR have already begun work on a joint program to facilitate such planning. On March 7, the South Van Dorn Street crossing of the Southern Railway was officially surveyed and given a permanent number—the official launching of the $2.55-million National Grade Crossing Inventory and Numbering project. It was the first of an estimated 223,000 public grade crossings to be included in the inventory.

This inventory and numbering program is shared on a 50-50 cost basis by FRA and the AAR, with the AAR responsible for coordinating the efforts of the entire railroad industry in the project. "The planning and design phase has been completed and a pilot testing of the inventory and numbering procedure has been conducted by 39 railroad companies collecting information on all public and private grade crossings, pedestrian crossings, and grade separations in Colorado, Nevada, Florida, Virginia and Connecticut," reports Max R. Sproles, executive director, highway-rail programs, AAR.

"The inventory and numbering in these five states is now complete and the data is being analyzed by a consulting group at the Texas Transportation Institute who have been hired to augment the AAR staff. . .This project will make possible a comprehensive inventory on a nationwide basis of all crossings.

"The unique number which will be the permanent identification number for the crossing will be the key to all grade-crossing information systems, such as inventory, accidents, improvement projects and correspondence between the industry and various governmental agencies that are interested in grade crossing programs," Sproles says.

The nationwide numbering effort will be carried out with the cooperation of the railroads, state highway departments and state and local governments, as well as FRA and the Federal Highway Administration. Information developed by the inventory and numbering project will be made available to individual railroads, state highway departments

and local agencies for use in developing studies and schedules for public funding of crossing improvements.

● **Money for devices.** A key provision of one proposal in the pending Federal legislation is that half of the Federal funds for grade crossings is to be spent for the installation of protective devices. This means that $75 million would be available in fiscal year 1974, $112.5 million each year in fiscal years 1975 and 1976. Taking $25,000 as the figure to equip a rail/highway crossing with automatic protective devices—flashing-light signals with or without half gates—this means funding for 3,000 crossings in 1974 and 4,500 crossings in each of the following two years.

Thus, 12,000 rail-highway grade crossings could be equipped with automatic protective devices in the next three years. This is 40% of the 30,000 crossings suggested for improvement with automatic protection made by the Alan M. Voorhees & Associates, Inc. study in 1969. At that time, the study reported that improvements to 30,000 grade crossings would cost $580 million but would yield benefits of about $6 billion. From that arithmetic, the cost for each crossing was pegged at $19,000. Inflation, cost of materials and equipment and wages have increased since then. Also, some experts contend that the declining accident rate at crossings would make the total benefits less than the Voorhees study would indicate. Nevertheless, passage of the pending legislation now in House-Senate conference, including Section 203 of S.502, would go a long way toward realizing the goal of minimizing hazards at rail/highway grade crossings.

● **Pressure to install.** Even if the total money package for crossing protection were reduced somewhat—and there is a strong feeling that it will not be reduced, but will be passed as approved earlier—there will be strong pressures to install the systems required by the legislation.

At present, railroads are installing automatic protective devices at a rate of about 1,500 grade crossings annually. Many roads are at their peak installation rate, using all the manpower they can spare from other projects, such as construction of automatic classification yards and interlockings and centralized traffic control installations.

Practically all of the protective devices at rail/highway grade crossings are installed and maintained by railroad employees who are members of the Brotherhood of Railroad Signalmen (though on a few railroads, these signal employees are members of other unions). BRS has entered into agreements with several railroads for the training of new and existing employees who have relatively few skills in the installation and maintenance of signal equipment. "We also made plans to be prepared within our craft to implement any program enacted by having sufficient trained personnel ready. We look forward to negotiating and implementing training agreements with all carriers to assure that proper trained personnel are available," said C.J. Chamberlain, president of BRS, at a recent meeting of the Safety Section, AAR.

If there are Federal funds available for 3,000 or more crossings to be equipped annually with protective devices, where is the manpower to come from? Are there any means available to reduce present installation-manpower requirements? There are, but it will take cooperation of railroads, BRS and other signal employee unions and the equipment suppliers.

For example, modular packaging of devices can provide for quick, easy installation—that is, all controls will be installed in equipment housings, gates and flashers will be assembled on masts; then housings and masts will be hauled to the crossing and set on their foundations (previously placed), and connections will be made to track rails and to commercial power.

To do this, some roads will have to make new agreements with the unions involved, because many present agreements require that railroad signal employees install and wire equipment in the housings, assemble gates, flashers, and so forth.

● **Manufacturers' role.** At present eight manufacturers supply railroads with rail/highway grade crossing protective devices or controls:

—Erico Products, Inc., track circuit controls.

—General Railway Signal Co., complete crossing protection including track circuit controls, flashing-light signals with or without gates.

—Harmon Electronics, Inc., crossing protection equipment including track circuit controls and flashing-light signals.

—Safetran Systems Corp., complete crossing protection including track circuit controls, flashing-light signals with or without gates.

—Servo Corp. of America, track circuit controls.

—Transcontrol Corp., track circuit controls.

—Union Switch & Signal Division, WABCO, complete crossing protection including track circuit controls and flashing-light signals with or without gates.

—Western-Cullen Division, Federal Sign & Signal Corp., complete crossing protection including track circuit controls and flashing-light signals with or without gates.

All of these manufacturers can supply package units for crossing protection in various degrees, mainly depending upon their capability and the customer's request. At this time, GRS, Safetran, Union Switch and Western-Cullen can provide completely assembled package units of automatic protective devices ready for field installation and hookup. Harmon can provide such packaging but at present is developing an automatic gate mechanism.

Railroads and 41 states share costs on Non-Federal-Aid Grade Crossing Protection Installations

State	Grade crossing protection installation	Grade separation construction
Arizona	50%	10%
California	50%	13%
Colorado	10%	10%
Connecticut	50%	10% and 50%
Delaware	50%	25-50%
Florida	0-100%	0-100%
Georgia	50%	50%
Idaho	20%	---
Illinois	10%	---
Indiana	50%	10%
Iowa	10%*	---
Kansas	25-50%	50%+
Kentucky	10%	10%
Louisiana	50%	50%
Maine	50-100%	---
Maryland	50-100%	25%
Michigan	50%**	15%
Minnesota	10%	10-15%
Mississippi	10-100%	10-100%
Missouri	50%	50%
Nebraska	25%	---
Nevada	13%	13%
New Jersey	5%	15%
New Mexico	50%	---
New York	50%	15%-
North Carolina	10%	10%
North Dakota	10%	10%
Ohio	10%	15%
Oklahoma	10-25%	50%
Oregon	50%	Varies
Pennsylvania	0-20%	0-5%
South Dakota	10%	10%
Tennessee	0-100%	0-100%
Texas	10%	10%
Utah	10%	10%
Vermont	10%	10%
Virginia	25%	Varies
Washington	10%	10%
West Virginia	10%	10%
Wisconsin	30-32%	---
Wyoming	10%	10%

*State highways only
**Flashing-light signals only
Source: DOT
Note: Railroads pay 100% of costs for Crossing Protection and Grade Separations in Alabama, Arkansas, New Hampshire and South Carolina. In Montana and Rhode Island, railroads pay 100% of costs for Crossing Protection; data on Grade Separations not available. Information not available for Alaska, Hawaii, and Massachusetts.

16 States Provide Funds for Crossing Improvement/Maintenance

State	Annual amount for improvements (protection and/or separation)	Funds for maintenance of crossing protection
California	$11,100,000*	50% (Installations after 10/1/65)
Colorado	120,000	—
Connecticut	500,000 (crossing elimination)	—
Illinois	2,400,000	—
Iowa	120,000	—
Kansas	300,000 (Maximum, protection only)	—
Kentucky	—	100% (Installations after 6/58)
Louisiana	100,000	50% (If funds available)
Maine	10,000 (Crossing protection 1970-71 state roads)	
Michigan	—	$120 per year
Minnesota	360,000	—
Nebraska	180,000	—
Nevada	—	50% (Installations after 4/16/71)
New Jersey	2,000,000	—
North Carolina	—	50%
North Dakota	25,000	—
Oklahoma	Indefinite	—
Texas	1,750,000	$100-150 per year
Virginia	—	50%
Washington	250,000	25% (New installations)
Wisconsin	400,000	—
Wyoming	90,000	—

*Includes $10,000,000 for grade separations, new locations where no grade crossing eliminated.
Source: DOT

Proposals have been made for a third party, such as electrical contractors or signal construction companies—there are a few in existence—to also install crossing protection equipment. These firms are doing so on a limited basis, but opinion in the industry is that a massive effort would have to be made to install (and then to maintain) the 3,000 to 4,500 crossings as proposed in pending legislation.

● **Beginnings in 1970.** The present interest and activity in rail/highway grade-crossing safety really began in 1970 when Congress passed the Highway Safety Act and the Rail Safety Act. These laws requested the Department of Transportation to report to Congress on railroad/highway crossing safety. Part I, a comprehensive statement of the problem, was issued in November 1971. Part II recommendations for resolving the problem were issued in August 1972.

"Any new initiative should concentrate on grade-crossing protection while grade separations and similar elimination-type projects should continue to be included in other highway programs. For a given level of investment much greater safety benefit can be obtained from a program of grade-crossing protection than from a program including both protection and elimination of crossings by grade separations and the like. The ratio of benefits to costs for a given level of investment is much greater for protection than for grade separations and the initial cost of protection is much less than the initial cost of grade separations," the DOT report states.

"To be fully effective, any Federal funding made available for grade-crossing protection should be extended to crossings located off the Federal-aid systems. [Sec. 203 (c) (2) of the House version of S.502 would make one-third of the Federal funds available for non-Federal aid highways.] The initial cost of the warranted improvements located off the systems is some $295 million. . . .The estimated 3,591 accidents which would be avoided annually by the completion of these improvements would include some 1,734, or 48%, at crossings not on the system."

DOT's report also recommended that an estimated total of $75 million annually for a period of 10 years would adequately fund both those protection devices now warranted and those which will be added by reason of increased traffic at existing crossings as well as those protective devices which will be warranted at new crossings.

Other recommendations:

—Emphasis should be placed on multiple crossing improvements involving closure of some crossings, particularly in urban areas.

—To effectively treat the large number of lower-volume crossings which do not warrant active protection [flashing-light signals with or without gates] and to provide effective advance warning at all crossings, each railroad and each public agency which does not now have a program for passive-device improvement should undertake one immediately.

—Any Federal assistance for grade-crossing protection should be administered at the Federal level by the Federal Highway Administration and at the state level by the state highway departments in cooperation with political subdivisions since there is already Federal assistance for grade-crossing improvement through these government agencies.

● **Financing recommendations.** Part II of the DOT report made these recommendations with regards to financing grade-crossing safety improvement projects:

—On highway improvements and individual crossing improvements where crossing improvements are made as part of highway improvement or a crossing improvement, there will be no railroad contribution to project costs.

—For elimination-type projects, the railroad would pay 5% of the railroad-benefit-related portion of the project cost, but where there would be no benefit, the railroad would not pay anything.

—Where a rail/highway intersection improvement is part of an overriding railroad improvement project, then the railroad would pay for the crossing improvements.

—Where urban-area or community improvements are made, then costs of crossing improvements would be borne by the various parties involved in proportion to the benefits which each will be receiving.

A final word on financing is based on these cost allocations. Financing will provide for the most equitable allocation of costs on a continuing basis by:

—Continuing the existing special Federal financial involvement in grade-crossing safety.

—Establishing a railroad share of the improvement cost which reflects only the current benefit to the railroad from the type of improvement involved.

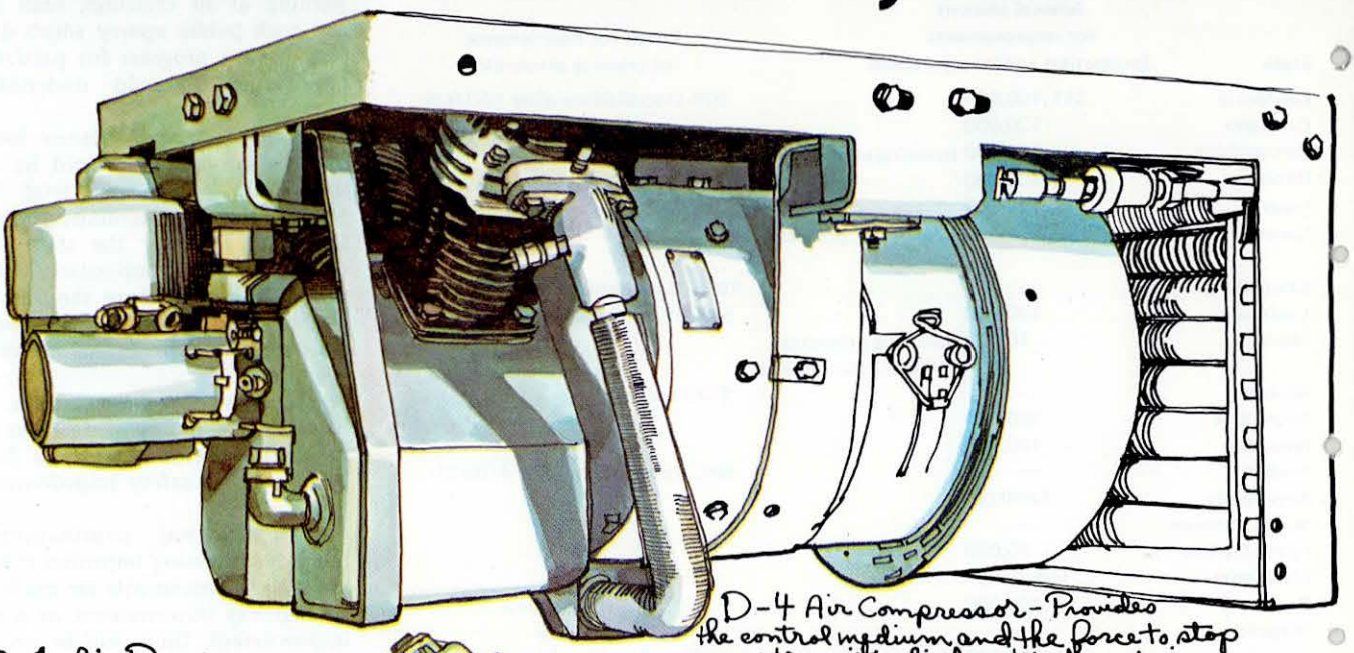
—Providing administrative flexibility to adjust the railroad's share of the cost, as may be dictated by changing conditions.

—Providing appropriate relief to the railroad industry in light of its current financial position.

—Requiring the party which creates a new crossing to assume the financial responsibility for appropriate protection (or separation).

—Providing for special considerations for allocating costs on complex urban projects which can also result in special benefits. ■

WABCO Control: 4,462 ideas



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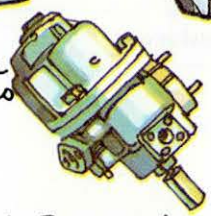

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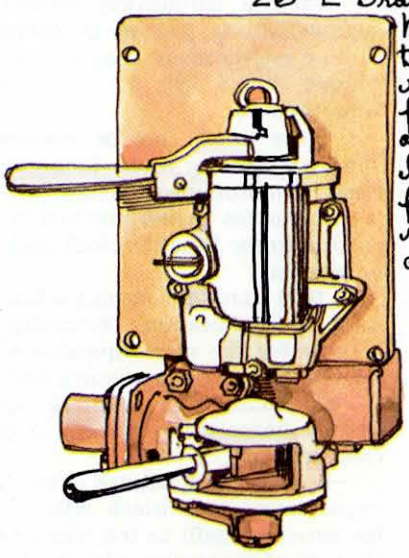

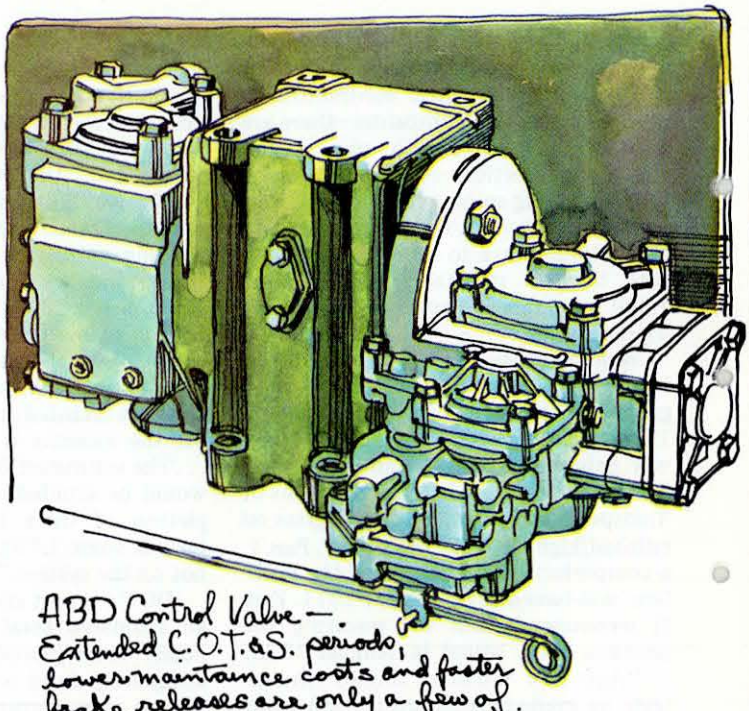

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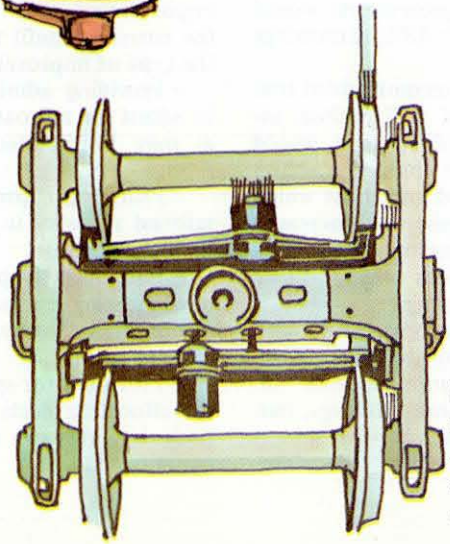

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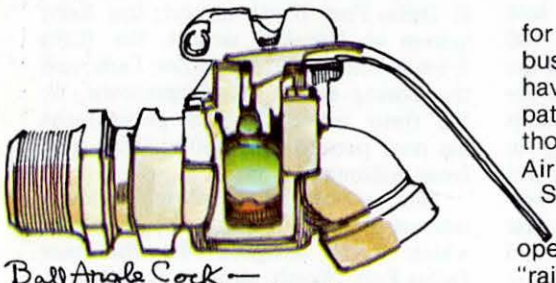

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Answers the need for simple servicing, easy operation and superior seals for rugged freight car operation.

Ideas. We've been having them for more than 100 years—built our business on them. 4,462 of these ideas have been patented and 431 of the patents are still working today. And those are only the numbers from our Air Brake Division. Union Switch & Signal can add 518 more.

To "prove out" these ideas we operate one of the most sophisticated "rail laboratories" in the world. When proven, we have the manufacturing and production facilities to make sure they stay that way.

Here are a few of the ideas that became available as WABCO products. We have a lot more we'd like to tell you about.

Write: Westinghouse Air Brake Division, Transportation Systems Group, Westinghouse Air Brake Company, Wilmerding, Pa. 15148.

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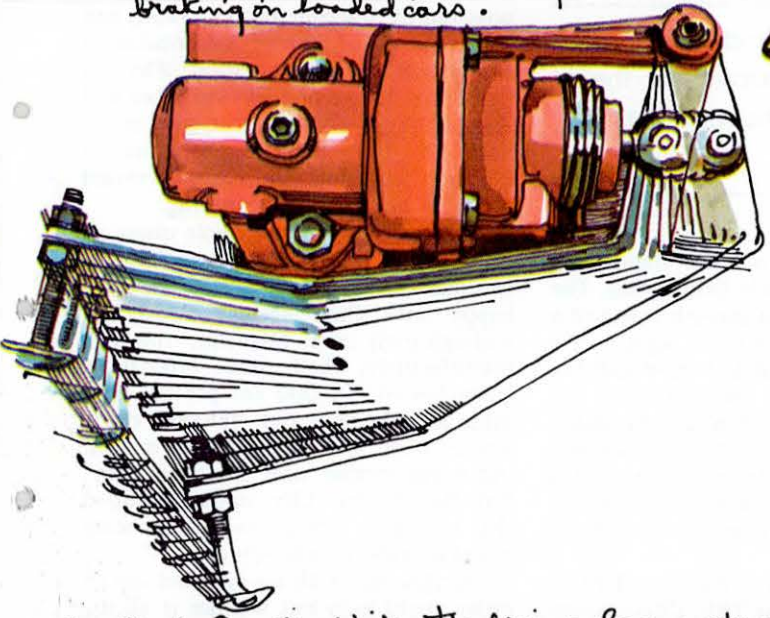

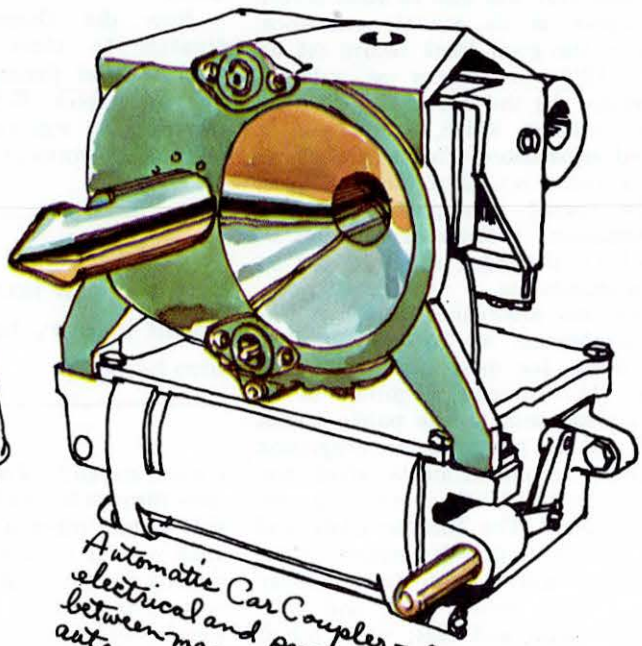

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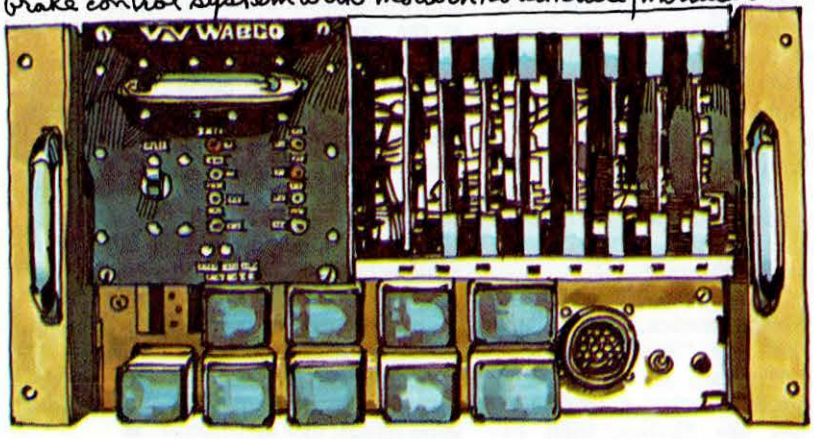

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Circle 14 on coupon page 43

Future transit: A role for levitation?

Railway Age Publisher Robert G. Lewis was among 751 transit operators, planners, suppliers, government officials and interested observers who attended the annual conference of the Institute for Rapid Transit in Toronto late in June. During three busy days, the conference provided its participants with a thorough updating on a wide range of matters (operations, safety, legislation, etc.) which affect the transit industry's fortunes. This year the conference also took a close look at a relatively new segment of the industry: PRT (personal rapid transit). Here is Lewis's report on the meeting:

There were two big reasons why the IRT this year was able to boast record attendance at its annual conference. First is the good track record set by prior IRT conferences as valuable gatherings for the interchange of ideas in an industry which, if not new, is indeed rejuvenated. The second relates to the first: a revival of interest in good public transit prompted by traffic strangulation, accelerated by fears of petroleum shortages, and nurtured by environmentalists.

Nor was attendance hurt by siting the conference at Toronto, itself a "Showcase for mass transport" (RA, June 11). Toronto is proud of its accomplishments in the public transit field, and was pleased at the recognition of these accomplishments which was implicit in the IRT's choice of a convention city. (The Toronto Globe and Mail led off its first-day report on the conference with a quote from Railway Age: "While others plan and talk, Toronto plans and digs; while others plan and consult, Toronto plans and lets contracts; while others plan and haggle, Toronto plans and grows.")

Toronto was a good choice for this year's meeting for another reason. PRT (personal rapid transit) for the first time had an important place on the IRT agenda; and Toronto is moving boldly toward an advanced PRT system. Just a few weeks before the IRT conference opened, the Government of Ontario awarded the West German firm of Krauss-Maffei a $16-million contract to build a 2½-mile PRT system, magnetically levitated and propelled by linear induction motors.

PRT, MAGLEV and LIM are all part of a new lexicon that the transit industry has brought into being. And it was about these that much of this year's conference was centered.

How, precisely, do you define PRT? What configurations will it take? How do you propel it? Is it to be on wheels, on air cushions (add TACV to the lexicon), or will it be MAGLEV? Ontario chose the Krauss-Maffei system from eight finalists, which included tube transit and other systems quite unlike that of the winner.

There are, in fact, one delegate told the conference, no fewer than 100 systems to choose from; another put the number at 130. How do you weigh the advantages and the drawbacks? There is no experience, in technology or in economics, to draw upon. Even the test tracks are new. No wonder the Government of Ontario is putting its first system in a fairground. What should Denver do, or Minneapolis? These are the questions the delegates, a good mix of manufacturers and operators, dealt with.

How did Ontario narrow eight finalists to three (Ford, Hawker-Siddeley, and Krauss-Maffei) and then ultimately pick K-M? One powerful reason given was the extent of West German government investment in advanced research, from the engineering state through full-scale field testing. The K-M system offers a smooth ride and a quiet one. It has a built-in regenerative braking system. LIM is rugged and has no moving parts, no brakes to wear, nor wheels; no traction problems, favorable maintenance characteristics, and winter weather is no deterrent. But, with motors half the size of the vehicle itself, it is less efficient than conventionally propelled systems.

PRT, MAGLEV and LIM are all part of a new lexicon that the transit industry has brought into being.

As for a precise definition of PRT, one delegate from the Twin Cities, where consideration of PRT is pretty far along, described it as a system with vehicles providing from four to six seats, operating in one direction on a grid basis. But one engineer claimed that it isn't "Personal" Rapid Transit unless it takes one person (or more than one in the same party) from his origin to his destination, automatically on a guideway, so that in a sense what everybody is really talking about is "group" or low-density mass transport.

There are, in fact, seven operating systems in North America, whether you call them PRT or "group" or low-density rapid transit, all in parks or airport applications with a single exception. They are Skybus, built by Westinghouse Electric in 1965 as a demonstration in South Park, Pittsburgh; similar Skybus installations at Tampa airport and one just opening at the airport in Seattle; the LTV system at Dallas-Fort Worth airport; the Rohr system at Houston airport; the Rohr 5½-mile line at San Diego Zoo Park; and the Boeing system at Morgantown, W. Va. (into which the U.S. government has now poured over $50 million, with more millions to come.)

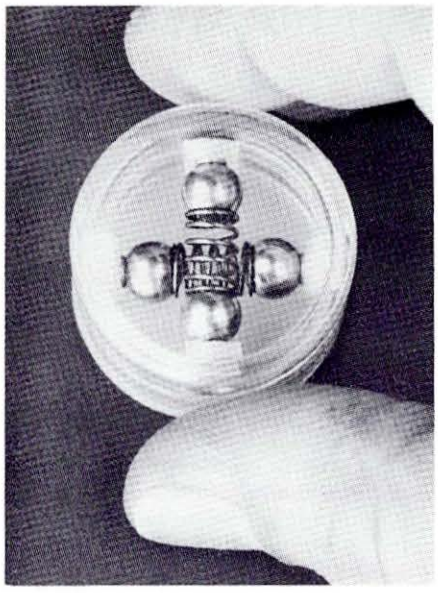
One system that attracted much interest at the IRT conference was that which LTV designed for the new Dallas-Fort Worth airport. It will ultimately have 13 miles of guideway, the initial sections of which are already under test and are to be put into service in October. Cars seat 16 and provide standing room for 24. They may be run individually, or trained in units of two or three cars. There will be 51 passenger vehicles and 17 more for "freight." Freight, in this case, falls into four classes—baggage, mail, supplies, and trash. The system will be rubber-tired, powered by traction motors (Swiss) and run at speeds of 20 mph. Description of the system brought a question: Why not put down tracks and put up catenary? Answer: You could; in fact, you might have to if it were out-of-doors in northern climates, and, too, it would probably be cheaper than paving.

Which brings up the whole question of rubber tires for transit. A spokesman for Mexico City said they were very happy with their system (nearly all underground) and Michelin, the tire manufacturer, had just offered a guarantee of 200,000 km per tire, and some already have run 385,000 km in service. And Caracas, just last month, opted for rubber tires for its subway. But the Mexico City operator added that he had no experience with the steel wheel to make comparisons.

No observer with his eyes and ears in order could help but wonder if all the transit innovation—which is so healthy, and welcome, and overdue—should not, at the same time, be tempered with a requirement for some degree of compatibility. Are we going to have so many different systems that we can never mass produce for mass transit, insuring high costs for everyone? Will there be no chance to tie systems together, or to exchange operating experience and hardware and even vehicles?

One hundred and thirty systems is probably about 120 too many. What is needed is more testing and research at the Federal levels, whence cometh matching funds; and more meetings of good minds, like at Toronto. ■

New Products Report



This low-cost shock indicator monitors equipment, machinery

What is said to be the world's first all-directional shock indicator costing less than a dollar in quantity is available from Impact-O-Graph Corp. The patented unit, called Protect-A-Pak, is intended for impact and shock monitoring of equipment and machinery during shipment. Any direction of shock or impact above the factory preset value will permanently trip the unit and give a clear indication of excessive shock exposure.

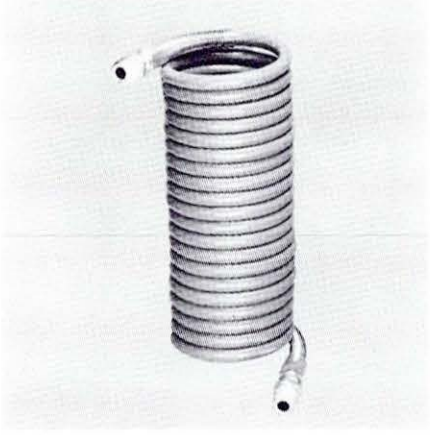
Protect-A-Pak is attached with its own self-stick mounting strip to each piece of equipment to be monitored. At each transfer point in shipment, the unit would be checked by looking through a view port in the carton or crate. Each carrier would sign-off on the status of the Protect-A-Pak before assuming responsibility for the goods. The unit is 1 in. high, 1¼ in. in diameter and weighs about one ounce. The "g" rating can be factory preset to suit the application. The tough plastic case is tamper-proof and is intended for single-trip use.

Circle 60 on reader service card

Plastic safety can meets OSHA standards for flammable liquids

A 5-gallon non-metallic safety can for flammable liquids has been approved by Factory Mutual for the same applications as conventional metal safety cans. Thick walls of high-density polyethylene material used in the containers give them many advantages over conventional terne plate cans, says the manufacturer, Justrite Mfg. Co. Among them are high resistance to punctures, dents and abrasion; permanent solid red color, and the capability of storing a wide variety of corrosive flammables which could previously be contained only in stainless steel safety cans or in much smaller glass or ceramic containers. The new cans have self-closing, leakproof caps, pressure relief, and flame arresters similar to the maker's line of metal safety cans. Factory Mutual approval, says Justrite, qualifies the non-metallic cans to meet OSHA requirements, but some state and local codes have not yet recognized their existence.

Circle 61 on reader service card



Coiled air brake lines permit easy tractor/trailer connection

Permanently coiled retractable thermoplastic air brake lines for easy tractor/trailer connections are available from Imperial-Eastman Corp. The product, called Truk-Coil, has been approved by the Department of Transportation's Bureau of Motor Carrier Safety. It is built to SAE standard J844 Type 3B. Among the Truk-Coil's advantages are ruggedness, ease of handling and installation, lower maintenance and installation expense, and durability. It is made of an inner tube and outer cover of virgin nylon and reinforced with tough, flexible polyester braiding.

The rated temperature working range is −40 degrees F to +200 F. Assembled units are available in working lengths from nine to 20 feet (eight to 16 inches when retracted, respectively). Assemblies utilize the firm's permanent-type fittings and integral spring guard to prevent kinking. Brass fitting assemblies include a swivel nut and seat, together with a standard male pipe end air brake connector. Any standard air brake compression fitting body can be substituted to expedite installation of Truk-Coil lines when replacing rubber lengths.

Circle 62 on reader service card

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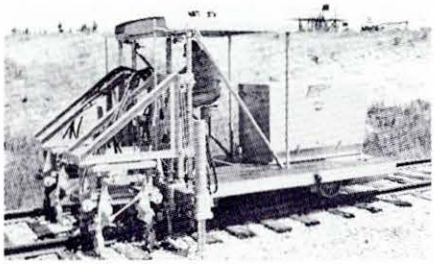
7/30/73

Tilt switch reveals high alarm conditions in storage containers

A new model A-1A tilt switch to indicate high alarm conditions in any storage container has been announced by C.W. Stevens, Inc. The switch may be used on any materials ranging in bulk density from corn, cocoa beans to plastic pellets to coarse ore. As the bulk material builds in height, the switch, which normally hangs vertically, tilts as the material pushes it to one side. When the angle of the switch reaches 15 degrees in any direction, the normally closed circuit opens, indicating an alarm condition. When the switch is tilted 15 degrees, the probe is torn off, or the wire is broken, the fail-safe circuit will open to indicate a problem. Properly located, the switch is not subject to damage by heavy, coarse or abrasive materials flowing past it. A waterproof cable seal insures reliable, trouble-free operation. Suspending the switch by a cable, rope, chain or wire cuts installation costs to a minimum. The switch, available from stock, costs $47.

Circle 63 on reader service card



Tamping machine is for tie gang operation or spotting work

A recent development from Tamper is an economical tamping machine, called Vibratool, said to be ideally suited for tie gang operation or spotting work. Its width, less than 8 feet over-all, makes Vibratool excellent for contractors or other operators where it is necessary to move the unit over the highway frequently. When fitted with optional jacking attachment and cross level indicator, Vibratool becomes a self-contained lifting and tamping machine. The basic design is compatible with various mechanical surface indicating devices.

Noise pollution has been minimized for the operator and people around the machine by enclosing the engine in a sound-abatement shroud. Vibratool can travel up to 30 mph and has production speeds of more than 700 feet per hour.

Circle 64 on reader service card

Cab air conditioners go above front windows

Mark IV air conditioning units are being installed in the cabs of CF7 locomotives being rebuilt by Santa Fe. The unit is designed for installation above the front cab windows and air is distributed through five louvres. The John E. Mitchell Co. 3-ton system is powered from the locomotive's 72-volt DC system.

Circle 65 on reader service card

Perforated plate grating designed for various uses

The one-piece Type S perforated plate grating has been designed by Apex Railway Products for end platforms, running boards and other railroad applications. Previously, the design had been used for brake steps. The grating features a circular pattern which combines a serrated tread surface on each opening with over 50% open area. The single-piece construction, fabricated from 0.093-gage hot rolled sheet, which is hot-dip galvanized after fabrication, is said to offer safer, skid-resistant footing under all weather conditions. The construction resists vibration and is said to meet AAR and FRA requirements. Standard 24-in. widths are available in lengths to 130 in.; custom tread widths to 30 in. can also be supplied. Optional clips are available for mounting through the grating pattern to supports.

Circle 66 on reader service card

NEW LITERATURE

ROLLER BEARING ADAPTERS. A wall chart picturing and explaining the inspection of roller bearing adapters called for under AAR interchange rule 37 has been issued by Abex Corp. The two-color chart measures 15in. by 24in.

Circle 71 on reader service card

AIR SWIVEL CONNECTIONS. A new line of air swivel connections engineered to be totally airtight and for use on all air-powered tools, or anywhere a swivel connection is required in air circuitry, has been announced by Cleveland Vibrator Co. Catalogs have been issued.

Circle 72 on reader service card

AIR SPRAY EQUIPMENT. An 8-page, 4-color brochure from Graco Inc. features the new Silver Air Spray Gun and pressure feed tanks. The gun has been refined and field-tested to meet or exceed painting performance standards. The tanks, which do not require maintenance, are available in three sizes.

Circle 73 on reader service card

SCREENS AND SCREENING. A checklist describing Singer Safety Products' protective screen and screening materials, protective clothing and gloves, and fire equipment covers that comply with OSHA recommendations has been made available.

Circle 74 on reader service card

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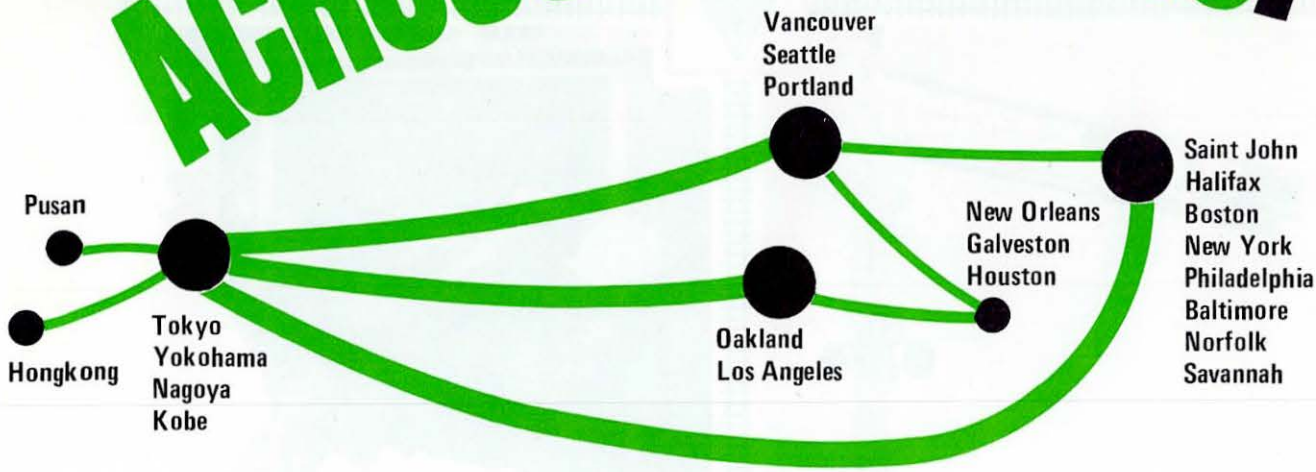
We've got the most accommodating CONTAINER SERVICE ACROSS THE PACIFIC!



East Coast, West Coast, Gulf area; Japan, Pusan or Hongkong — we ship your containers fast and safe. At present at your service are 3 main routes, 2 feeder routes, plus inland Mini-Land Bridge service.

The Pacific Northwest Route: a full-container direct service route between Japan and Vancouver in Canada, and Seattle and Portland in the U.S.; in a short 8 days transit at 8 day intervals.

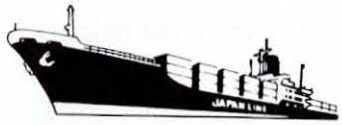
The California Route: A full-container direct service route between Japan and Los Angeles and Oakland; with equally fast service, at 4 day intervals.

Both routes feature **Mini-Land Bridge Service** to the U.S. Gulf area, and U.S. Atlantic ports.

The New York Route: between Japan and the East Coast of the U.S. and Canada via the Panama Canal, your goods take a short 16 days, vessels leaving at 7 day intervals.

And 2 full-container feeder **routes:** they connect Kobe in Japan with Pusan in Korea and Hongkong.

We can tell you more about our excellent service — so let us know about your special container shipping project, and we'll take care of it. In a very personal manner, as always.



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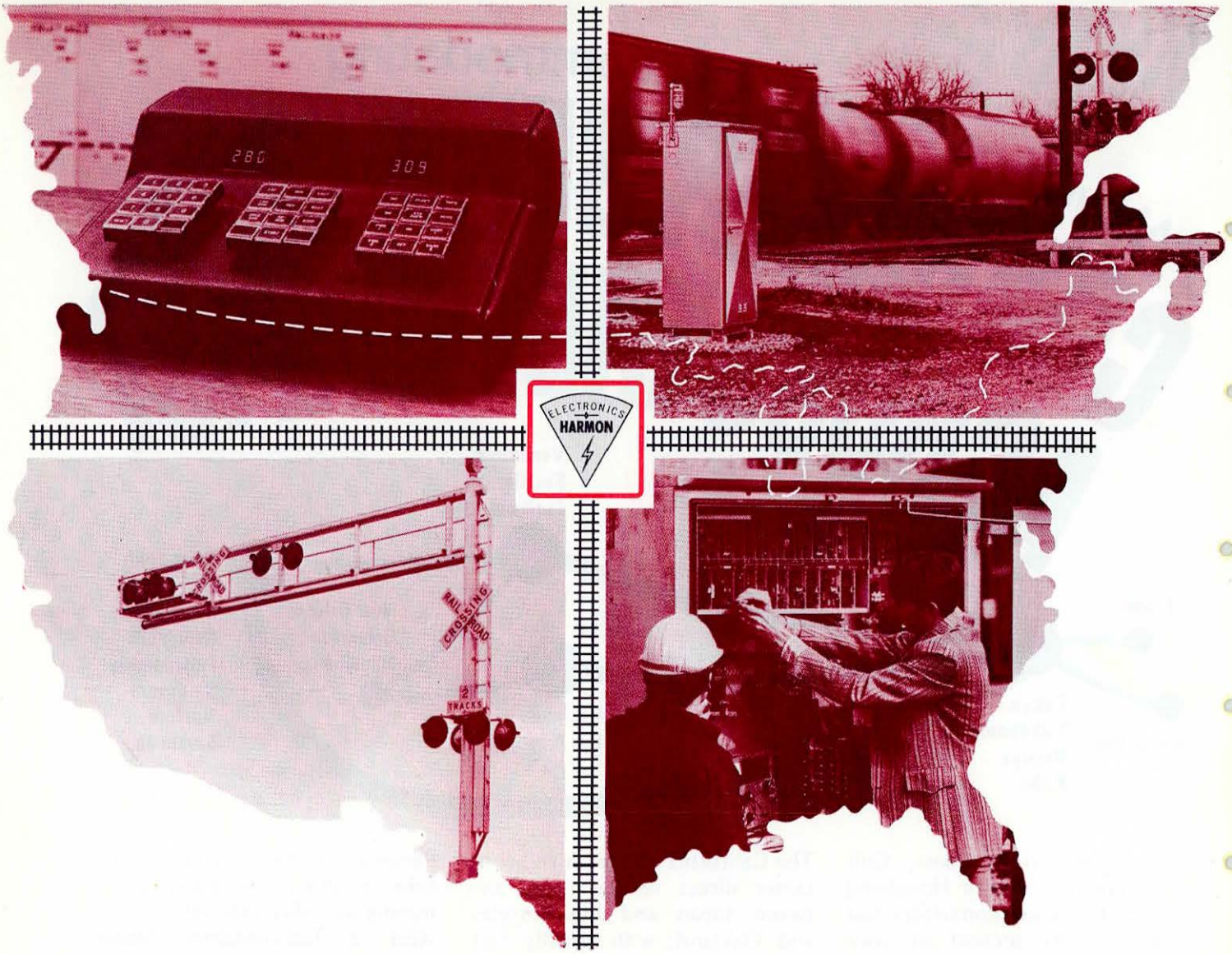
AGENTS IN U.S.A. & CANADA

Baltimore: Terminal Shipping Co. Tel. 301-752-2901 **Boston:** Norton, Lilly & Co., Inc. Tel: 617-HU2-4375 **Charleston:** Carolina Shipping Co. Tel. 803-RAymond 3-6484
Chicago: Intercontinental Container and Transport Agency Inc. Tel. 312-297-8000 **Cleveland:** World Shipping Inc. Tel. 216-228-7676 **Dallas:** Phillips-Parr, Inc. Tel. 214-742-4464
Detroit: World Shipping Inc. Tel. 313-562-2585 **Galveston:** Phillips-Parr, Inc. Tel. 713-765-6357 **Houston:** Phillips-Parr, Inc. Tel. 713-224-1893 **Jacksonville:** Kauffman Shipping Co. Tel. 904-353-5638
Keene: Davenport Agency Tel. 617-297-0053 **Memphis:** Phillips-Parr, Inc. Tel. 901-527-3562 **Miami:** Narovi Shipping Corp. Tel. 374-3514, 8585, 8587 **New Orleans:** Phillips-Parr, Inc. Tel. 504-522-4217
Philadelphia: J.A. Mccarthy Inc. Tel. 215-WA3-9300 **Norfolk:** Hasler & Company Tel. 703-MAdison 5-3641 **Savannah:** Hohenstein Shipping Co. Tel. 912-234-2621
Wilmington: Wilmington Shipping Co. Tel. 919-RD3-7333 **Vancouver:** Westward Shipping Ltd. Tel. 604-683-7585 **Toronto:** Atlantic Container Line (Canada) Ltd. Tel. 416-368-4626
Montreal: Atlantic Container Line (Canada) Ltd. Tel. 514-842-2261 **Halifax & St. John:** Atlantic Container Line (Canada) Ltd. Tel. 902-425-3711



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Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended July 7 totaled 427,543 cars, according to the Association of American Railroads. This was a decrease of 88,790 cars, or 17.2%, compared with the previous week, and an increase of 54,693 cars, or 14.7%, compared with the corresponding week last year. Ton-miles generated by carloadings in the week ended July 7 are estimated at 13.2 billion, an increase of 8.3% above the corresponding week of 1972.

REVENUE FREIGHT CARLOADINGS

Commodity	July 7 week	June 30 week
Grain	31,706	36,356
Farm products	8,679	9,505
Metallic ores	46,400	49,671
Coal	34,638	48,147
Crushed stone, gravel & Sand	29,000	32,095
Nonmetallic minerals	15,874	16,357
Grain mill products	16,321	19,839
Food and kindred products	17,679	22,094
Primary forest products	19,227	24,820
Lumber & wood products (except furniture)	12,289	17,602
Pulp, paper & allied products	18,605	23,732
Chemicals & allied products	23,808	25,953
Petroleum products	8,198	8,609
Stone, clay & glass products	20,151	22,553
Coke	8,129	8,453
Metals & products	23,721	28,316
Motor vehicles & equipment	21,341	27,499
Waste & scrap materials	12,582	16,201
Forwarder & shipper assn. traffic	8,257	10,707
All other carloads	50,484	66,102
LCL traffic	454	549
Total cars loaded	**427,543**	**515,160**
Cumulative total, 27 weeks	1973	1972
	13,937,232	**13,182,686**
Estimated revenue ton-miles (billions) 27 weeks	429.9	396.9

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended June 30 were up 16.8% over the corresponding week last year, while trailers or containers showed a gain of 18.1% over 1972. Cumulative volume for the first 26 weeks of 1973 is 755,551 cars (18.1% above 1972) and 1,301,932 trailers or containers (up 21.6% over the comparable period of last year). Both figures represent all-time industry records for any six-month period.

IN CANADA

7 days ending	Tons of Revenue Freight	Cumulative Totals
June 21, 1973	5,288,215	110,852,466
June 21, 1972	4,285,148	97,136,390

● *General Railway Signal.*—Received contracts for highway crossing protection equipment from the following railroads: Algoma Central—to equip three double track crossings in Sault Ste. Marie, Ont., with aluminum flasher signals, half-wave rectified track circuits and shelf-type relays; Florida East Coast—to modernize 11 crossings, using frequency shift overlay (FSO) track circuits and motion detectors; Penn Central—to provide control equipment (including FSO track circuits); Columbia & Cowlitz—to equip two crossings in Longview, Wash., with aluminum flasher signals, approach overlay track circuits and plug-in relays; Reading (at West Conshohocken, Pa.) and Kansas City Southern (at Pickering, La.)—to furnish FSO track circuits and plug-in relays.

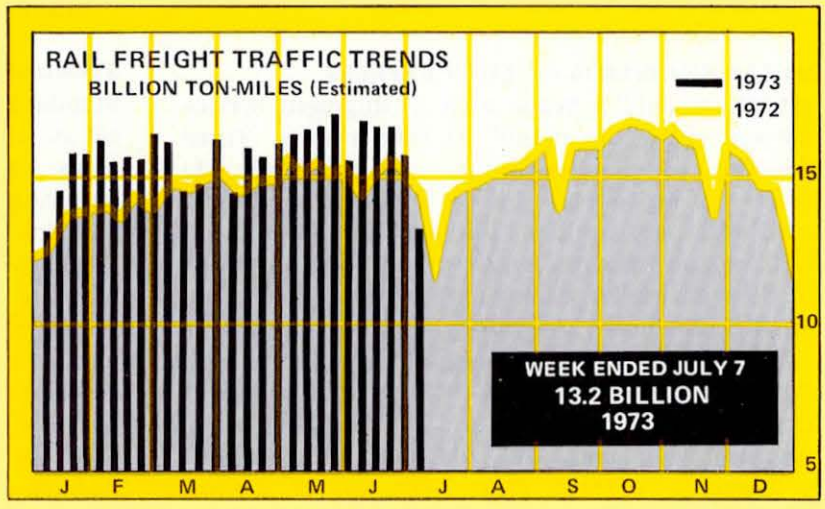
● *Seaboard Coast Line.*—Ordered 62 diesel locomotives at a cost of about $16 million. Electro-Motive will build 31 GP38-2 2,000-hp units; General Electric, 31 U-18B 1,800-hp units. All are scheduled to enter service in the fourth quarter of 1973.

● *Trailer Train.*—Ordered 763 89-ft, 4-in. standard-level cars as follows: from ACF—400 cars; from Bethelehem Steel—163 cars; from Pullman-Standard—200 cars.

● *Freight-car orders and deliveries.*—The following report has been received from the AAR and ARCI:

	May '73	April '73	May '72
DELIVERED			
Built new by carbuilders	4,390	3,766	3,883
Built new in R.R. shops	287	235	828
Built new—total	4,677	4,001	4,711
Rebuilt	71	66	101
TOTAL DELIVERED	**4,748**	**4,067**	**4,812**
ORDERED			
To be built new by carbuilders	6,121	13,894	2,955
To be built new in R.R. shops	430	100	228
To be built new—total	6,551	13,994	3,183
To be rebuilt	-11*	12	30
TOTAL ORDERED	**6,540**	**14,006**	**3,213**

ON ORDER AND UNDELIVERED	June 1, '73	May 1, '73	June 1, '72
To be built new by carbuilders	35,624	34,267	11,063
To be built new in R.R. shops	2,403	2,260	4,281
To be built new—total	38,027	36,527	15,344
To be rebuilt	405	487	1,712
TOTAL ON ORDER	**38,432**	**37,014**	**17,056**



Source: Association of American Railroads

Moving Freight

NEW ENVIRONMENT FOR ABANDONMENTS

All line abandonments pending before the ICC were stalled during July after a New York resident enlisted the aid of the Natural Resources Defense Council in getting a Federal court order delaying consideration of the closing of a 30-mile segment of Penn Central's Harlem Division because of possible environmental impact. ICC immediately suspended scheduled hearings on petitions for abandonment of the Baltimore & Annapolis and for 18 segments of PC, Chicago & North Western, Denver & Rio Grande Western and Illinois Central Gulf. Pending appeal, ICC action on at least 250 other stretches of track in 40 states could also be held up.

ICG WRAPS UP ITS CSA PLAN

Many railroads have gone to the mobile-agency concept—but few if any have carried it as far as Illinois Central Gulf. ICG now has 108 Customer Service Agency routes and, with the addition of the last of 25 routes on the former Gulf, Mobile & Ohio, coverage is systemwide. Just four years ago, the first mobile-agency route went into operation, on former IC in Iowa.

SHORTLINE WILL SERVE RIVER TERMINAL

A $7 million rail-to-barge coal transfer terminal on the Ohio River at Ghent, Ky., will be served by the 16-mile Carrolltown Railroad which will receive trains from Louisville & Nashville at Worthville, Ky. The facility, with a 4-million-ton annual capacity, is to be completed in 1975 and might eventually be expanded to handle 15 million tons yearly. Low sulfur coal from eastern Kentucky will be loaded on barges to be delivered to customers on the Ohio and its tributaries. A dust suppression system and multiple spray stations will minimize air pollution and steps are being taken to control noise.

AMTRAK RE-INVENTS RAILWAY EXPRESS

Amtrak on July 1 began a small shipment service between cities on major Amtrak routes. Three categories of express service are provided: (1) *Priority*, a high-speed service linking 32 Amtrak-served cities, for packages under 25 pounds at a flat $7.50 charge between any two points, and which will be available 30 minutes after arrival at destination (2) *Economy*, covering 110 cities on the Amtrak system that are served by baggage cars with rates per 100 pounds as low as $3, with a minimum charge of $5 per shipment, and (3) *Custom*, also to 110 cities, is an "individualized, specialized service" for frequent express users. The parcel service, already successfully tested between Richmond, Va., and New Haven, stems from Congressional encouragement of Amtrak for development of additional revenues from mail and express.

TANK CAR MILEAGE ALLOWANCES COMPUTERIZED

Auditing of mileage allowances for leased rail cars, always a bookkeeper's nightmare, has been simplified by Union Tank Car with the introduction of MATCH (for Mileage Allowance Trip Check), a computerized auditing system. Capable of matching individual shipments with mileage allowances earned from railroads, MATCH automatically calculates and verifies mileage allowances and indicates credits earned for each complete trip. The Trans Union Corp. affiliate says no other system employed by lessors provides such a practical means to audit mileage allowances. In addition to the auditing feature, the new system provides prompt credit, accelerated cash flow, compatibility with existing computer systems, and automated cost distribution.

ATLANTA SIGNS FOR RAIL HAUL OF WASTE

After many uncertainties, Southern Railway has concluded a contract with Atlanta to launch a rail haul system to dispose of solid waste (RA, June 25, p. 48). Southern developed the plan for hauling 4-foot cubes of solid waste to a landfill near Dry Branch, Ga., where unused clay pits are to be filled and smoothed for reclamation. Southern will haul at least 2,000 tons of solid waste a week under the contract, for which Atlanta will pay $375 per 100-ton carload, a minimum of $7,500 a week. Atlanta Mayor Sam Massell said the total price (including construction of $1.25 million baling facility) is comparable in cost to what Atlanta has paid to operate an incinerator which will be closed. Environmentalists are hailing the contract for ending pollution in Atlanta and restoring stripped land.

STANDARD CAR TRUCK TO OPEN NEW PLANT

Standard Car Truck Co., a leading designer of freight car stabilization systems since 1895, has announced plans for opening a multi-million dollar manufacturing plant at Chillicothe, Ohio, by 1974. According to Robert W. Burns, president, a new metals casting manufacturing process will be used at the new plant to produce such components as the Barber S-2 stabilized truck; swing-motion caboose trucks; monocast single-roller side bearings; C-PEP center plate extension pad anti-hunting devices; and the new Mark II dual stage spring system. Burns said that the new plant will employ "dramatic new manufacturing techniques never before used in this country."

LETTERS

Treatability of Douglas fir

San Mateo, Calif.

To the Editor:

I enjoyed reading your "Wood and the Railroads" article in the May 14 issue. However, I feel that your advisory expert has led you into a "southern pine" trap. The statement that Douglas fir doesn't take treatment very well even when it is incised is misleading and, to be candid, erroneous.

All of us "wood picklers" should be meeting the A.W.P.A. specifications which are the "bible" for our industry. Properly equipped plants, most of which are in the western area, handle the western species per specifications, turning out a product equal to anything produced in the southern pine region. The heartwood of either specie is more difficult to treat and I would be interested in knowing if your contact can get better penetration in the heartwood of southern pine than is achieved in Douglas fir. Incidentally, some of your major railroads are carried on Douglas fir railroad ties, usually under a more severe use condition, yet results must be satisfactory as frequently a premium is paid for this material.

The superior treatability of glu-lam stringers is subject to question. Technically, I can't find any reason that, under the same moisture content and when properly incised, glu-lam stringers differ in this respect from solid sawn material.

At any rate, I enjoyed your article. It is well written and if it helps to sell wood it has my enthusiastic support.

C.F. Craig
Executive Vice President
J.H. Baxter & Co.

BRAC and the Northeast

Rosemont, Ill.

To the Editor:

Gus Welty in his "Lines on Labor" in Railway Age, May 28, 1973, seemed surprised that the Brotherhood of Railway and Airline Clerks has indicated support for a plan to create a government operating agency to run the bankrupt northeast rail lines.

Lest Mr. Welty or other readers of Railway Age may worry that BRAC has "gone over the brink to socialism," I hasten to point out that our policy position was developed from hard facts and is based on practical, not ideological, foundations.

We quite agree with Mr. Welty that the Federal courts are not the ideal instrument for the management of big railroads. We agree that progress towards working out a solution of the Penn Central and other cases has been too slow. We agree that most people, including ourselves, would "opt for a private—enterprise solution," if it were feasible from a financial and service standpoint. The trouble is that it isn't.

The proposal set forth by the Department of Transportation would be a death blow to effective railway service in the Northeast. The government would be forced to spend a lot of money; the affected railroads would be cannibalized, with the profitable sectors being turned over the the N&W or the C&O-B&O and the rest transferred to the inventories of scrap dealers. In this process, there is no question that scores, if not hundreds, of communities would lose important railway freight service and that the disruption of the traffic patterns would quite probably have a major and deleterious effect on the economy of a number of northeast port cities. Ports without adequate rail lines are inadequate ports.

We support "Federail"—the proposed Federail Railroad Transportation Authority—not because we are enamored with government ownership of railroads, per se, but because we believe the alternatives set forth for private ownership in the Northeast would create such disruption and economic havoc that adoption of either the DOT or the ICC proposals is simply unwise.

Either a public or a private program is going to require a big expenditure of money. But we believe that the Federail proposal will, at least, give us the return on that investment of a somewhat adequate form of railway service. The social and economic benefits to the whole northeast section of the country more than justify, in our opinion, support for the government ownership and operation plan contained in the bill submitted by Representative Podell of New York, H.R. 7373.

C.L. Dennis
International President
Brotherhood of Railway and Airline clerks

No concrete action

Sarasota, Fla.

To the Editor:

Forty-one years ago last October, I went to work in Brooklyn for the Electric Railway Presidents Conference Committee on the test programs of trolley cars that resulted in the production of some 8,000 P.C.C. cars in the next 18 years. At that time I had little interest in maintenance of way but do remember, then and later, articles in trade journals on tests of concrete ties, here and abroad. Seems to me the story in the March 12 issue of Railway Age on the Canadian National tests indicates it takes a long time to get decisions. How come?

R.G. Welch

MANAGER
LEASE SYSTEMS
&
PLANNING

Due to unparalleled growth a midwest based Rail Car Leasing Company is currently seeking a Manager, Lease Systems & Planning.

This new position requires qualified candidates to possess a minimum of 3 years experience in planning and operations analysis plus a working knowledge of systems and procedures. Assignment will include long range planning, design, analysis and implementation of management reports and data systems plus analysis of equipment purchases.

The opportunity offers an excellent starting salary plus an atmosphere of challenge and freedom to innovate. Your personal and professional growth will be limited only by your own ability.

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People in the News

BANGOR & AROOSTOOK.—Walter E. Travis, assistant executive vice president, Bangor, Me., appointed executive vice president, succeeding **Alan G. Dustin,** named executive vice president and chief operating officer, **Boston & Maine,** Boston.

BOSTON & MAINE.—Alan G. Dustin, executive vice president, **Bangor & Aroostook,** Bangor, Me., named executive vice president and chief operating officer, B&M, Boston.

BURLINGTON NORTHERN.—W.J. Johnson, Jr. named assistant controller, and **M.J. Iliff** director, taxes in the controller's division, both newly created positions. **N.C. Merz** becomes director, internal audit, finance department. In the pricing division, **L.J. Gilmore** appointed director of pricing, and **K.S. Bagley,** director of pricing-administration. **J.D. Giallombardo** appointed director, building engineering, engineering division.

E.R. Craven named to the newly established position of assistant vice president, special projects-electrification. Mr. Craven, who is succeeded as assistant vice president, safety and rules by **R.L. Grinde,** will direct a study, in cooperation with **General Electric,** of the feasibility of electrifying portions of BN's 26,000-mile rail network. **R.D. Schlappy** appointed assistant to Mr. Craven, and **E.C. Fransen,** special assistant, mechanical.

CHICAGO & NORTH WESTERN.—Robert D. Smith, manager of program planning, elected secretary.

W.H. Huffman appointed assistant vice president-engineering, Chicago.

James P. Flynn, manager-freight damage prevention, appointed director-freight damage prevention.

J.W. Roy, market analyst, sales and marketing department, named assistant market manager-grain and grain products.

J.A. Barnes named chief engineer, Chicago.

GREENWICH & JOHNSONVILLE. —J.G. Cassick appointed superintendent, Albany, N.Y.

NORFOLK & WESTERN.—James D. Mattox, superintendent, Fort Wayne, Ind., named superintendent, Radford division, Roanoke, Va., succeeding **Robert J. Whitaker** who replaces Mr. Mattox at Fort Wayne.

Roy E. Shamblin, supervisor of bridges and buildings, Pocahontas region, Bluefield, W. Va., appointed division engineer-maintenance, Pocahontas and New River divisions.

Sidney F. Robertson, assistant to the vice president of operations, Roanoke, named assistant to executive vice president there, succeeding **A.H. Graham,** retired. **Lewis A. Creasy,** assistant to vice president and general manager, Atlantic Region, Norfolk, appointed assistant to senior vice president-operations, Roanoke. **Steward M. Murray,** chief clerk to superintendent, Shenandoah division, Roanoke, succeeds Mr. Creasy at Norfolk.

Michael B. Grim, traffic representative, Detroit, appointed district traffic manager, Chicago, and is succeeded by **Kenneth C. Eastwood.**

Jack A. Collyer named assistant secretary and **Mrs. Loretta D. Manning,** assistant to the secretary, Roanoke.

SANTA FE.—D. Lyle Berry, special assistant to vice president-operations, Chicago, named assistant manager-industrial engineering there.

Hoy L. Morrow, industrial engineer, San Bernardino, Calif., appointed assistant to chief mechancial officer-locomotive maintenance, Chicago.

R.D. Shaver named superintendent of safety-system, Chicago, to succeed **D.D. Baird,** retired. **J.M. McMillan** appointed assistant superintendent of safety-system, Chicago.

Richard T. Dennison named assistant general manager-mechanical, Coast Lines, Los Angeles, to succeed **Lyle B. English,** who retired June 30 after 40 years' service.

A.H. Renne named district engineer, Albuquerque and Los Angeles division, Los Angeles, succeeding **H.G. Webb,** named assistant to chief engineer-system, Chicago.

SEABOARD COAST LINE.—W.M. Reeves, Jr., appointed manager national accounts; **M.G. Hebert** named manager chemicals & distriBulk services, and **W.H. Stricklin** appointed office assistant to vice president, all at Jacksonville, Fla.

D.B. Cone, assistant general freight agent, Jacksonville, and **A.W. Jones,** general agent, Augusta, Ga., retired after 44 and 39 years of service, respectively.

SOO LINE.—W.J. Cooke, terminal trainmaster, Minneapolis, appointed trainmaster, Stevens Point, Wis., to succeed **P.L. Ingebretson,** named to the new position of trainmaster, Harvey, N.D. Mr. Cooke's successor is **G.P. Economon,** trainmaster, Glenwood, Minn., who in turn is succeeded by **M.T. Virnig,** assistant trainmaster, Minneapolis. **D.R. Engle,** trainmaster, Minot, N.D., transferred to Enderlin, N.D.

TORONTO, HAMILTON & BUFFALO.—G.M. Price appointed chief mechanical officer, Hamilton, Ont., succeeding **J.W. Rowley,** retired after 47 years of service.

I.L. Dorsey appointed assistant to general manager, Hamilton, succeeding **A.G., Dow,** retired after 32 years of service.

J.D. Crosgrove appointed local treasurer and paymaster, Hamilton, succeeding **R.E. Lemmond,** retired after more than 46 years with the TH&B.

TRANSPORTATION ASSOCIATION OF AMERICA.—Paul J. Tierney, executive vice president and general counsel, elected president on June 1 to succeed **Harold F. Hammond,** who retired as chief executive but will be available as a senior advisor for 12 months.

UNION PACIFIC.—Wendell C. Clements and **Robert J. Morton** named general traffic agents, Memphis and New Orleans, respectively. Mr. Clements was chief clerk to the traffic manager, Denver, and Mr. Morton, chief clerk to the general traffic manager, Omaha. **Scott L. Smith,** district manager of trailer traffic, Los Angeles, named assistant manager trailer traffic, Omaha.

Herbert E. Grau, assistant to vice president-operation, appointed senior assistant to the vice president-operation, Omaha. Mr. Grau's successor is **Phil A. Jordan,** assistant director of labor relations. **Jack E. Petersen,** general superintendent, Northwestern district, transferred to the Eastern district.

Samuel H. Henry, assistant traffic manager, Seattle, named traffic manager, Denver, to succeed **William James,** retired.

In a reorganization of the marketing department, **Robert J. Clark** named director-marketing economics; **Gregory M. Broderick,** manager-transportation economics; **Norman R. Linse,** manager-market research; **Richard W. Rees,** market manager-lumber and wood products.

WESTERN PACIFIC.—Hugh W. Klebahn elected treasurer. He will continue as treasurer, **Western Pacific Industries,** the railroad's holding company.

Gail A. Wright appointed director-management services. Mr. Wright was formerly director of systems and data processing, **United Way, Inc.,** Los Angeles.

SUPPLY TRADE

Glen Hunt, plant manager and chief engineer, **Nolan Co.,** Bowerston, Ohio, has been named president, succeeding the late **Glenn Merritt.**

Robert E. Vey has been elected vice president of marketing, **Buffalo Brake Beam Co.,** Lackawanna, N.Y. **Robert A. Bollman,** vice president of sales and marketing, retired July 1, after 32 years with the company.

A.O. Taylor, chief mechanical officer, **Trailer Train Co.,** retired June 1, and his former position abolished. **R.M. Bailey,** manager car shops and inspection, has been named director mechanical services with responsibility for budgets and expenditures, shop planning and development, and inspection and training. **F.M. Manson,** director equipment maintenance, continues to be responsible for maintenance of equipment, and **R.H. Brodeur,** director of engineering and research, for all engineering and research activities.

James W. Lawson has been appointed to the new position of general sales manager, **Railway Appliance Division, True Temper Corp.,** Cleveland. Mr. Lawson was previously manager, special accounts and sales development.

D.A. Schwartz has been promoted to marketing manager, Specialty Chemicals Group, **Nalco Chemical Co.,** at Chicago.

Edward J. Holton has been promoted to vice president and general sales manager, **General Cable Corp.,** effective Sept. 1, at the corporation's new headquarters in Greenwich, Conn. Mr. Holton is manager of communications sales, Des Plaines, Ill.

OBITUARY

Arthur A. Dailey, 79, retired general advertising manager, **Santa Fe,** died June 10 at his home in Sun City, Ariz.

Frank J. Steinberger, 72, retired vice president and purchasing agent, **Santa Fe,** died June 18 in Skokie Valley Hospital, Skokie, Ill.

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Viewpoint

Onward and upward with TOFC/COFC, but there are problems

If the most recent Railway Age survey of the TOFC/COFC business (May 28, p. 22) proved anything beyond a glimmer of a doubt, it was that (1) while the people most directly concerned with piggyback are supremely confident of its growth potential, at the same time (2) they have deep-rooted worries about gearing capacity to that potential.

Terminal capacity, of course, is pretty much an individual-road problem, requiring individual decisions on adding tracks, installing more lift-on/lift-off equipment, building completely new TOFC/COFC terminals in situations (and there are a few of them) where existing terminals can't be expanded much more.

Equipment capacity, however, is something else again—and on the flat-car equipment-supply problem specifically, the main approach almost has to reflect an industry effort, centered on the organization set up 18 years ago to provide equipment, Trailer Train.

In retrospect, the flat-car shortages that were plaguing piggyback late last year and earlier in '73 were caused by what might best be described as freaky circumstances: The faster-than-expected rebound of the economy, the rather sudden success of new TOFC/COFC marketing/pricing initiatives, the export grain movements that sent box-car shippers scurrying to piggyback, the fact that carbuilders were rather heavily booked with orders for flat cars for automotive service.

There can be no guarantee that odd circumstances won't again disrupt more-or-less normal equipment supply/demand patterns. Fortunately, though, several actions are being taken which should help to minimize the force of unforeseen circumstance. The most obvious is that Trailer Train has sharply stepped up its car orders: Additions to the TTX fleet by yearend are expected to total more than 4,700 cars. Simultaneously, Trailer Train's major carbuilders are increasing their capacity for constructing TOFC/COFC equipment. And, perhaps most important for the long range, Trailer Train (with industry help) is working toward development of new forecasting techniques which, hopefully, will keep it from being either 'way over or 'way under on equipment supply. Conventional means of forecasting will still be used—Trailer Train will still be getting inputs from railroad people who get inputs from customers. But now the aim is also to see if there are, among the many standard economic indicators, ones which have moved in similar fashion to fluctuations in TOFC/COFC. If correlations can in fact be discovered, Trailer Train and its owner-railroads may wind up with a firmer grip on the when, why and how-much of equipment-investment decisions.

TTX CAR INVESTMENT TOPS $1 BILLION

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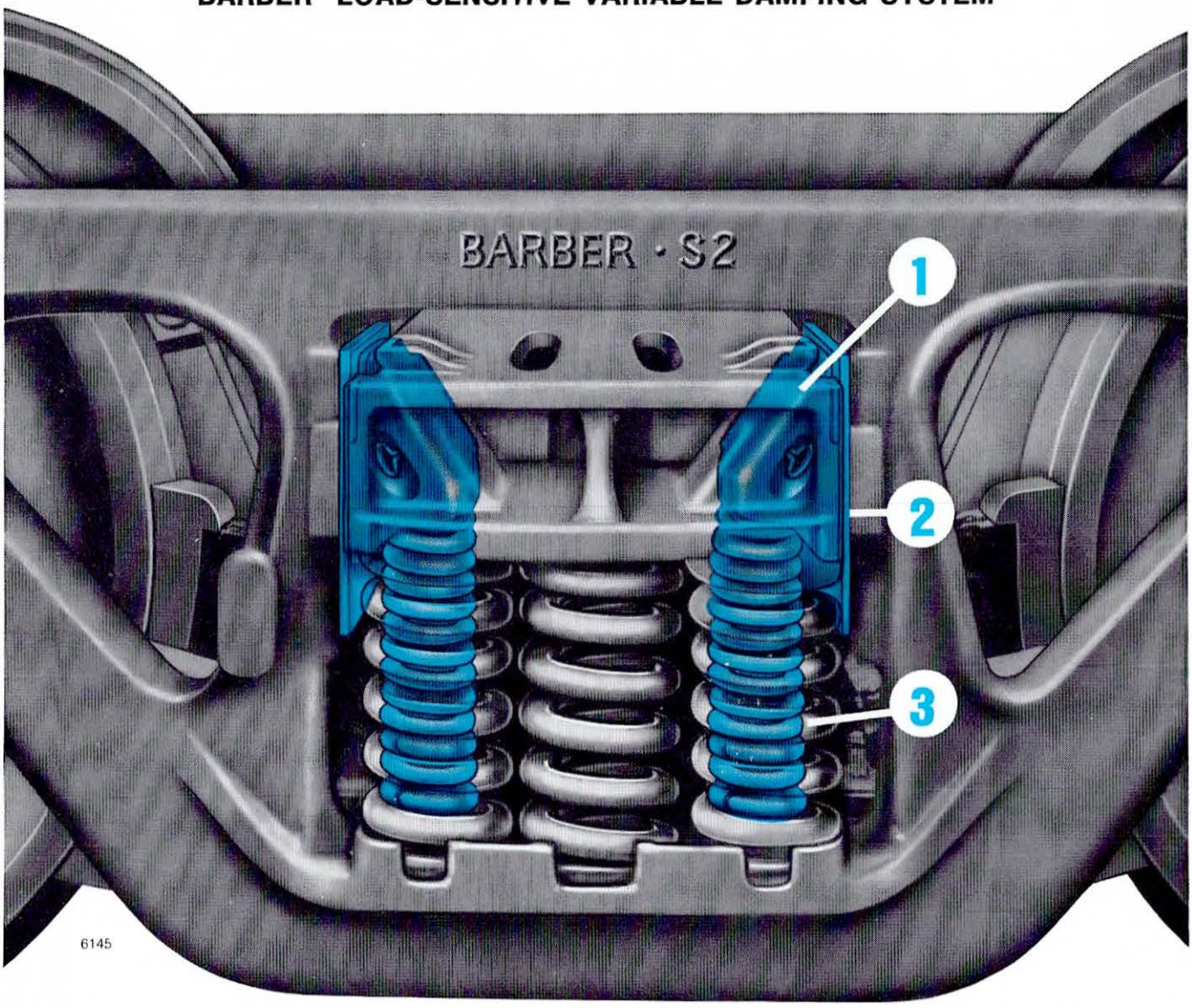

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Charles A. Hankins, District Manager Intermodal Operations, Illinois Central Gulf

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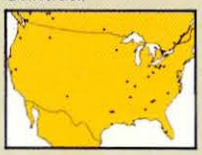

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Circle 2 on coupon page 43